Review of Research in Visual Arts Education

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Contents

Editorial

The annual award for *Excellence in Dissertation Research* in Art Education was presented to Carlton W. Palmer at the *National Symposium for Research in Art Education* which was held at the University of Illinois, Urbana-Champaign campus this past October. His dissertation, entitled "Pictures and Words, Their Differential Memory and Relationship to Field Dependence — Independence," was completed at New York University. An article summarizing his dissertation will appear in a forthcoming issue of the *Review*.

It is reinforcing to note that applications for this year's award increased by approximately 60% over last year. In all, fifty-three dissertations representing experimental, philosophical, historical and methodological approaches were submitted for consideration.

As was the case last year, the editors again owe a special note of thanks to our fellow award committee members, Edmund B. Feldman, Laura Chapman, June King McFee and Jessie Lovano-Kerr for their conscientious reading and careful evaluation of the large volume of materials sent to them in the process of reaching the final award decision.

Next year's award will be for dissertations completed during the 1979 calendar year. Applicants must submit three copies of their dissertation abstract and a letter requesting consideration by February 19, 1981.

With this issue, the twice yearly dates for distributing the *Review* change from the usual Winter-Spring dates to Winter-Fall. We are making this change in order to comply with the wishes of the many subscribers who have expressed preference to receive the *Review* during the academic year rather than during the summer when many are on vacation. This issue ends last year's subscription for many readers. Materials for the new subscription year (Winter 1980 and Fall 1981) are enclosed. You will note that the price has not been increased over last year. We are hopeful that the change in publication dates will reduce the need for duplicating our subscription campaign which in the past few years has been necessitated due to lost or misplaced subscription materials resulting from summer mailings. Once again, some concrete demonstration of support from the readers will be most appreciated.

GWH/TZ

AFFIRMATION AND STUDY: PHENOMENOLOGY IN DOCTORAL RESEARCH

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The University of Iowa

The Ph.D. program in Art Education at Concordia University, Montreal, Canada, sponsored a series of symposia, *Presentations on Research in Art Education*. The second of these, "Phenomenological Description: Potential for Research in Art Education," was held in April, 1978. Professor Helmut Wagner interpreted the work of phenomenological sociologist, Alfred Schutz, as the basis for a phenomenology of art; Professor Ted Aoki presented curriculum research in a new key: the situation-interpretive and the critical inquiry modes; and Professor Kenneth Beittel gave an account of his development as a researcher in a qualitative description of the art process. The papers, responses, and a transcript of the discussion were published by the organizers (Victoria & Sacca, 1978). The conference is evidence of some interest in phenomenology as an approach to research in art education. A member of the audience suggested a condition which may account, at least in part, for the searching in this direction when he remarked that, "Art education literature is mainly characterized by inspirational generalizations out of which the particular is very difficult to formulate" (p. 155).

Mindful of Husserl's admonition to go to the things themselves, I decided to examine a research application of phenomenology by studying the doctoral dissertations identified with it. A search of *Dissertation Abstracts International* for the two years from November, 1977 through October, 1979 revealed a total of 56 dissertations indexed under either Phenomenological or Phenomenology. These were written at 37 different institutions. Not surprisingly, 16 of the dissertations were in the field of philosophy; however, it is interesting to note that 18 were listed under some category of education. Michigan State University, the University of Pittsburgh, and the University of Southern California each produced four dissertations, and a total of 13 schools were responsible for more than one in the Phenomenological or Phenomenology classifications. The distribution by subject matter and by institutions is summarized in Table I.

The strategy of using the index to discover phenomenological dissertations has an obvious limitation: unless the authors chose to use one of the words in their titles the works were not disclosed in this search. However, it may be argued that those to whom the methodology was of great importance were likely to include a reference to it in their titles.

Several of these students elected to give some definition of phenomenology in their abstracts. It is instructive to examine not only the concepts, but also the language they use for expressing these ideas:

> Briefly defined, phenomenology is the examination and description of experience as that experience is in its own terms. Through a process usually called the phenomenological reduction, the phenomenologist works to free himself from various prejudices, feelings, a priori conceptions and theories which might hide or discolor the phenomenon he studies. (Seamon, 1977, p. 3726-A)

Seamon continued by stating that his study in social geography "attempts a phenomenology of everyday environmental experience — the sum total of

SCHOOLS

SUBJECT MATTER AREAS	Baylor	Boston College	Boston University	Brandeis	City University of New York	Claremont Graduate School	Clark University	Columbia	Cornell	Drew	Duke	Duquesne	Emory	Marquette University	Michigan State	New School for Social Research	Northwestern	Ohio State	Ohio University	Penn State	Princeton	Purdue	Rice	Stanford	SUNY at Buffalo	Union Graduate School	U.S. International University	University of British Columbia	UCLA	University of Santa Barbara	University of Michigan	University of New Mexico	University of Pittsburgh	University of Toronto	University of Southern California	Universite De Paris	Washington State University
Education,																																					
Adult																																		1			
Curriculum and Instruction								1																										1			
Guidance and Counseling																											1	1				1	3	1			
General																	1										1						1				
Higher						1																															
Philosophy								1																					2								
Psychology																															1						
Social Science			1																																		
Theory and Practice																1								1		1											
Literature,																																					
American				1											1																						
Comparative													1																								
English					1																																
General																			1																		
Romance																						1	1												1		
Philosophy	1													1	1	2					1	2		1	1					1					1	2	1
Political Science, General	1								1												1	1														1	
Religion, Philosophy												2	1																								
Social Geography							1																														
Sociology,																																					
Criminology																1																					
General		1																									1										
Industrial and Labor Relations																										1											
Structure and Development																																	1				
Theory and Methods																		1															1				
Speech																			1	1																	

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a person's firsthand involvements with the everyday places, spaces, and environments in which he typically lives" (p. 3726-A).

> A phenomenological method seeks to understand any phenomenon as it is experienced, without preconceived conceptualizations which might distort or distance that experience. It is a descriptive method, attempting to reveal the "is-ness" of phenomena. It tries, furthermore, to see as comprehensively as possible man's interrelationships and intentionalities being manifested in experience. (Brown, 1977, p. 5412-A)

Spinnell (1977), in his analysis of three kinds of understanding that have pedagogical significance for teachers, asserted: "The phenomenological account claims that understanding is a particular act of consciousness that grasps the meaning or essence of an object" (p. 5328-A). Norris (1978) studied the phenomenology of perceptual experience in Keats and Stevens. She defined phenomenology as unfolding "how things come to mean for the perceiver" (p. 4281-A).

> It is related to poetry in that the text generates a world, and the way the poet experiences the world around him structures and is embodied in the world of the text. In the act of reading, the reader grasps the texture of being which the poet lays bare for him. . . . For Merleau-Ponty, the mobile body touring and turning the object is the vehicle which unfolds the world-as-meaning because "the world is not what I think, but what I live through." . . . By examining some phenomenological concepts — intentionality, bracketing, reduction, and constitution — in their philosophic context, we come to understand them as they operate in the world of the poem. Bracketing in phenomenology is a suspension of all theoretical knowledge (for example, $2\pi r$ of the circle), so that the object can be experienced in its physiognomy (here, its roundness), its appearing to us as we commingle with it. This self-emptying is an openness, readiness for experience. . . . In the temporal,

creative and perceptual process, which is the unfolding of the poem, the poet/perceiver, and incarnate unconsciousness characterized by a motor intentionality, seizes the particulars around him; and in his search for meaning as that meaning comes to be, he "sings" the world. (p. 4281-A)

The language of these definitions represents something of the attitude taken by researchers of a phenomenological orientation. Attitude is used here in the phenomenological sense as defined by Wagner (1970): "A general posture or stance taken toward larger spheres of life and interest, including a particular 'style' of thinking, for example: the common-sense attitude; the scientific attitude" (p. 316). In addition, these quotations introduce some of the terms often favored by phenomenologists, and, in some cases, redefined by them. Their special use of language has been so troublesome to many readers that Wagner (1970) appended a *Glossary of Selected Terms* to his work on Alfred Schutz. A few may be helpful to readers of this paper:

> *Intentionality.* The most basic characteristic of consciousness: it is always the consciousness of something; it is directed toward something. (p. 318)
>
> *Eidetic approach.* The main level of phenomenological inquiry. It serves the establishment of the "essential" features and characteristics of concrete objects of apperception. Eidetic features of thought objects consist of general meanings as constituted by cognitive processes. (p. 317)
>
> *Phenomenological reduction.* The basic procedure of phenomenological method. Through "bracketing" of all judgments about the ontological nature of the perceived objects, etc., and by disregarding their uniqueness, that which is given in cognitive experience is reduced to the "essentials" of its form. (p. 321)
>
> *Experience.* The basic starting point of all phenomenological considerations is the *essential actual,* or *immediately vivid,* experience, that is, the subjective,

spontaneously flowing *stream of experience* in which the individual lives and which, as a stream of consciousness, carries with it spontaneous linkages, memory traces, etc., of other, prior, experiences. (p. 318)

Meaning. The meaning of an experience is established, in retrospect, through interpretation. (p. 320)

Constitution. The term refers to the constitution of thought objects and indicates the processes of clarification of meaning, establishment of meaning context, and mobilization of prior knowledge concerning specific objects of the ongoing conscious life. It is a cumulative process in which the cognitive results of repeated experiences of the "same object" are deposited ("sedimented") in the mind. (p. 317)

Intersubjectivity. A category which, in general, refers to what is (especially cognitively) common to various individuals. In daily life, a person takes the existence of others for granted. He reasons and acts on the self-understood assumption that these others are basically persons like himself, endowed with consciousness and will, desires, and emotions. The bulk of one's ongoing life experiences confirms and reinforces the conviction that, in principle and under "normal" circumstances, persons in contact with one another "understand" each other at least to the degree to which they are able to deal successfully with one another. (p. 318)

The attitudes, and the language used by the dissertation writers to express those attitudes, may be considered to represent a kind of intersubjectivity. A likeness which is not surprising since one of their shared experiences is reading many of the same authors: Husserl, Heidegger, Scheler, Kierkegaard, Merleau-Ponty. Note the commonality of orientation which may be observed among the following four writers across the diverse subject matters of natural science, schizophrenia, curriculum evaluation in social studies, and aesthetics. Rouse (1977) described observation within the context of research in the natural sciences:

I begin by placing the practice of science within the context of the prescientific lifeworld. Science has an ambiguous relation to the world: it is an activity taking place within the world, but it also attempts to be a rigorous and accurate description of that world as a whole. Even this latter aspect of science presupposes the existence of the world as we experience it prescientifically. The world is experienced prescientifically as the field within which we act. I describe this experience as being intersubjective, and as being founded upon the experienced unity of one's own active body. . . . The treatment of observations as aspects of two distinct concrete wholes, the perceived world and the world constructed by the scientific imagination, is the perceptual manifestation of the ambiguous relation between science and the world. The description I have given shows that, for the scientist, the meaning of what he observes is imbedded in the context of his theoretical understanding of the world. (p. 5531-A)

Larkin (1979) developed case studies of the life-worlds of schizophrenics:

The primary purpose of this dissertation was to bring to light the genesis of one dimension of the Lebenswelt, that of the schizophrenic. . . . based on the assumption that schizophrenics construct a way-of-being in the world known as their project and live their lives as defined by the project. . . . A second purpose was to generate a substantive theory, grounded in descriptive data, of the schizophrenic's subjective world. Utilizing the approach of existential-phenomenological inquiry the author identified and described the themes of schizophrenia as they appeared to the schizophrenic. The core of the evolved theory was primarily grounded in the data from 180 interviews with nine subjects. . . . The questions of what were the characteristics, themes, and essential structures of schizophrenia formed the basis for the initial reflections of the schizophrenics' descriptions of their Lebenswelt. (p. 7163-A)

Rothe (1979) explored existential phenomenology as an approach to curriculum evaluation in social studies:

Existential phenomenological inquiry assumes that individuals assign personal meanings to different situations in which they are immersed. Meanings that are usually hidden or taken-for-granted by members of the everyday world are made problematic in this study. . . . Situational meanings are grounded in the basic existential phenomenological assumption that when a teacher or student chooses a project (seeing an act as complete), he has explainable reasons for having made a choice in relation to his project. The reasons suggest meanings a student or teacher assigns to a dimension of social studies. Interpretations based on "passive, immediate, responsible and transcendent areas of being" indicate that students and teachers base their everyday classroom activities on hidden meanings. Once meanings were uprooted, described and made available to teachers and students, both groups took time to reflect upon them. (p. 1846-A)

Drasky (1977) examined the existential and phenomenological aesthetics of Natanson and Fallico:

Natanson emphasizes art as revelation or symbol of the metaphysical constants which are the foundation of our world. Art cuts through the taken-for-granted familiarity which obscures everyday reality's limiting structure and thus raises the metaphysical constants to the sphere of explicit recognition. Fallico locates the fundamental nature of art not in the revelation of the basic truths and limiting constancies of reality, but in unlimited self-expression of man's subjective being as unlimited freedom, spontaneity, personality, and feeling. (p. 4881-A)

As one reads the writings of phenomenological researchers with their references to evolving and to beginning with particular and concrete experiences without knowing to what conclusions those will lead, the way in which many artists, typically, speak of their work comes strongly to mind: "About a year ago this shape began to appear in my work." "My work started changing about a month ago." Such a stance is not restricted to the visual arts. Witness Fowles' (1979) remarks: "I do not plan my fiction anymore than I normally plan woodland walks; I follow the path that seems most promising at any given point, not some itinerary decided before entry" (p. 62).

Researchers inclined toward questions about people and their interactions seem especially conscious of what existentialists refer to as the mysteries. They want to see the world whole, but can be engulfed by its seemingly infinite vantages. For some this problem is solved by employing an observational system as a focus; indeed, the title under which many of these systems were compiled — *Mirrors for Behavior* (Simon & Boyer, 1974) — is an analogy for their characteristic structure. They reflect to the observer those behaviors which occur within the frame of the system. In using the phenomenological method a researcher may be thought of as looking through a camera lens. The researcher is responsible for apprehending what perceptions will be recorded and later for editing so as to reveal those which are most characteristic. Husserl conceived of his phenomenological method as beginning with the subjective and particular, but by means of eidetic reduction, abstracting essences which he believed to be universal and intersubjective (another way of saying objective). The poet, Annie Dillard (1975), voiced this faith when she advised: "If you can't see the forest for the trees, then look at the trees; when you've looked at enough trees, you've seen a forest" (p. 131). "Looking at the trees" is, of course, why phenomenological researchers speak so often of "everydayness." Everydayness is a condition with which, by definition, we all are very familiar. How we come to know those trees as a forest can be by means of the intentional cognitive act of eidetic reduction.

Students who have read the philosophy of phenomenology often voice confusion about how to translate the method into practice. Again, it may be helpful to examine some of the descriptions of methodology which appear in these abstracts. Perelman (1977) related his procedures in studying counselors:

The research examined each interview in order to build a clear description of the counselor's personal experience of his counseling practice. First, he separated the interview material into meaning units, discrete and independent statements which help reveal the counselor's personal experience of his counseling practice. From these meaning units the researcher wrote descriptions which were situated in the personally lived experience of these subjects. Each "situated description" was shared with the subject for the purpose of further clarification. Finally, the researcher determined the underlying shared thematic structures within all of the "situated descriptions" and wrote a general description of the counselor's personal experience of his counseling. (p. 5258-A)

Seaward (1977) provided an outline of the steps used in his process of phenomenological explication:

I. Analysis on the Idiographic Level
   A. Preliminary reading of the protocols
   B. Structural analysis
   C. Fundamental description
   D. Fundamental structure
   E. Emergence of themes
II. Analysis on the Nomothetic Level
   A. Compilation of Emergent Themes
   B. Grouping by Intersubjectivity
   C. Constituent Theme Development
   D. Frequency and Percentage Ranking (p. 6409-A)

Justin (1978) related that "There were no customary hypotheses; instead the investigator asked two open-ended phenomenological questions. . . . From the purpose of the study five themes emerged. . . . These themes resulted in the following interpretations" (p. 1106-A). Seamon (1977) reported:

The primary empirical data for this inquiry are a collection of experiential observations gathered in the context of four groups of people. . . . The study attempts to synthesize and interpret the over one-thousand observations gathered in these environmental experience groups. Over time, these reports organized themselves around three primary themes which the author has called movement, rest, and encounter. (p. 3726-A)

Morehouse (1979) wrote about the implementor/observer:

The concept of implementor/observer was developed out of an attempt to evaluate a project which assisted teachers and administrators in introducing Gifted Education into schools in rural Wisconsin. . . . Strategies from qualitative inquiry were used. . . . Some modification in the techniques and strategies used by the participant/observer were made. . . . Phenomenological epistemology provides the philosophical basis for the development of the concept of implementor/observer, as it did for the development of the participant/ observer. Involvement, commitment, and personal experience combine with the specific techniques of observing, recording, and documentation to enlighten intuition by critical reflection. (p. 217-A)

The last sentence confronts us with one of the problems in phenomenological research. Most of us over a period of time do feel some confidence (whether misplaced or not) in assessing such qualities as involvement and commitment in people we have come to know well, but how accurately are we able to do so from someone's writing? Even more disturbing is the question of how we are to separate such judgments from the skillful presentation of the writer. In part this is an aesthetic question and most of us have learned intuitively that it is appropriate to make distinctions between art objects and simply well-made things. In another sense it is a moral issue, and for those who would contend that "authenticity" cannot be

marketed, I ask you to consider Bette Midler's comment in the current movie, *The Rose.* In attempting to persuade her manager to cut short her tour as a rock singing star, she says, "I haven't got the sincerity anymore."

Husserl conceived of an intersubjective transcendental community in which subjective experience is common to other persons. In this conception, recognition would appear to be the touchstone for judging such subjective states. According to Husserl, we validate judgments by evidential experience. Sense-perception is one type of such experience, but he regarded this as concerned with empirical matters of fact; essential or eidetic intuition is the evidential experience on which he based his phenomenology and he believed this kind of experience made it possible for us to know types, structures, and connections of meaning. (What protects us from errors in judgment is not so clear.) Husserl's interest centered on cognitive experiences, but when Heidegger revived Kierkegaard's philosophy into what would become existential phenomenology, his focus was on experiences which are expressed in poetry. Some of the authors of these 56 dissertations appear, in their abstracts, to be following existential phenomenology, and, perhaps, expecting a poetic evaluation. The most extreme example is Ashby's (1977) "Stonehenge: A Phenomenology of the Imagination." The abstract is a poetic description of an imagined personal experience and is indexed under religion, philosophy. The dilemma for readers when presented with the expectation of a poetic evaluation is that the format and organization of a dissertation are not fundamentally aesthetic, and neither is the intentionality which we bring to a piece of research an aesthetic one. Indeed, Coles (1978), in his provocative profile of Walker Percy, suggested that one of

the reasons Percy began writing novels rather than continuing to write philosophical essays was that he wanted to manifest his philosophical notions in an aesthetic form rather than to examine them as concepts in a scholarly format.

Schutz (1970), in his work to synthesize phenomenology and sociology, gave considerable importance to intersubjective understanding. He regarded typifications of behavior as fundamental to our understanding the actions of individuals. He used the terms "Thou-orientation" and "We-relationship" to describe the degree of concreteness involved in our relations with others. He wrote, "When I am They-oriented, I have 'types' for partners" (p. 227). In this condition we expect others to behave in definite ways based on our typifications which are constructed from our previous experiences. However, in the "face-to-face" situation of a We-relationship, "The other is to me, and I am to the other, not an abstraction, not a mere instance of typical behavior, but, by the very reason of our sharing a common vivid present, this unique individual personality in this unique particular situation" (p. 289). It is this condition which phenomenologists hope to achieve with those whom they observe. However, even if it is attained, readers can only know the subjects of the studies through the mediation of the writers, and, thus, they are for them what Schutz called "merely contemporaries."

Perhaps the troubling paradox of intersubjectivity and uniqueness emanates from a confusion between what Coles (1978) refers to as the "journey" and the "maps."

> The French philosopher Gabriel Marcel speaks of the need for us to go from the concrete to the abstract *and back to the concrete:* we are in a certain situation — we want to know who we are and whither we are going; we use

our heads to find answers to those questions, hence ideas get spelled out; at some moment we find the beginning of an answer, a direction; then we must set out, and the journey is not to be mistaken for the maps, charts, manuals, and books that tell us about the journey. (pp. 68-69)

If this metaphor can be applied to phenomenological research, it may be helpful to think of the research experience as the journey and of the dissertation, or article, which grows from it as the map of that journey. This allows for the possibility of following these "maps" when we want to know where we are going, in a research sense; however, each journey will have its unique perambulations. What map can tell us the speed at which we will travel, the people we may encounter, whether it will be raining, or the sun will be shining? Such a view removes some of the burden for achieving intersubjectivity between readers and writers of phenomenological research. It does not, however, preclude the possibility of false or poor maps. Apparently, we have to begin the journey, or to have made a similar journey, in order to recognize these.

Piaget (1926) observed the remarkable fluidity of the relationship between language and conceptions:

In verbal intercourse it would seem that children do not understand each other any better than they understand us. The same phenomenon occurs between them as between them and us: the words spoken are not thought of from the point of view of the person spoken to, and the latter, instead of taking them at their face value, selects them according to his own interest, and distorts them in favour of previously formed conceptions. Conversation between children is therefore not sufficient at first to take the speakers out of their ego-centrism, because each child, whether he is trying to explain his own thoughts or to understand those of others, is shut up in his own point of view. The phenomenon occurs,

it is true, among adults. But these have had at least some practice in argument or conversation, and they know their faults. They make an effort to understand and be understood, unless indeed distrust or anger reduces them to a childish state, because experience has shown them the appalling density of the human mind. Children have no suspicion of all this. They think that they both understand and are understood. (pp. 98-99)

Piaget, in this passage, seems to share Husserl's belief in the possibility of intersubjectivity. I suspect that, even among adults, understanding is taken for granted more often than Piaget suggests. However, quite a few phenomenologists incorporate into the research structures which they devise, such procedures as Perelman's (1977) sharing of his situated descriptions with his subjects. These methods strengthen the credibility of their efforts to understand and be understood.

For most of this century there have been endeavors to apply the phenomenological philosophy in a methodology. However, Poole (1972) went so far as to charge that "Those who engage in phenomenological reading tend never to re-emerge as practitioners" (p. 132). He did make an exception for R. D. Laing. I suggest Robert Coles as another exception. Despite such pessimism, specific research applications of phenomenological procedures exist in art education. Johnson (1977) used the theoretical foundations of Husserl, Schutz, and Mead in her study of the social interaction between docents and children.

The methodology of the study was derived from the phenomenological method and participant observation. The tape-recorded conversations from sixteen school tours were transcribed and edited, and then, described, reflected, and reflexively analyzed. These conversations were examined to ascertain the kinds of art knowledge being

constructed during the tour. Also sought were the methods by which the docents made this knowledge plausible to the children. Finally, the aesthetic knowledge in these tours was examined for taken-for-granted assumptions. (5857-A)

Table II illustrates the structure devised by Godecke (1979) for her study of learning in color photography. She modelled the data analysis on Giorgi's (1975) design. The pre-reflective-reflective base and the fundamental description and fundamental structure were adapted from Colaizzi (1973); the stimulated process recall was adapted from Beittel (1973). Her subjects participated in twelve weekly thirty minute stimulated process recall meetings to which they brought their contact print sheets and any enlarged prints which they had made from the contacts.

Beittel is the art educator most frequently identified with phenomenology, although I think he would want to qualify this as hermeneutic phenomenology. In *Alternatives for Art Education Research* (1973) he proposed methods which Kaelin (1974) viewed as:

Procedures by which the bridge between the subjective and objective qualities of expressive acts may be constructed. It is for this reason that his work is truly phenomenological. The battery of techniques he suggests is hoped to produce the "Roshomon effect": if the events are told from enough different but relevant points of view, then one should be in a position to suspect what the truth of the story was. (p. 65)

A number of phenomenologically oriented dissertations have been written at The Pennsylvania State University as a result of his influence. Burton (1973), Folsom (1976), Novosel (1976), Paleologos (1976), and Thompson (1974), are examples.

For some of those engaged in it,
the promise of phenomenological research is an almost redemptive quality. Levin's (1975) writing illustrates this aspect:

The notion of self-evidence dedicates phenomenology to this task: nothing less than the dream of reversing that decadence of meaning which Pinter's 'silences' so eloquently lament, and regaining for humanity its own *good* sense as its own. Through phenomenology, we are offered the chance to recognize what is reflected in and, in effect, released by, the evidence of our intended objects: our most primitive power to mean, our power to *bestow* meaning. We are offered the chance, finally, to re-cognize ourselves. (pp. 76-77)

I am content to rest the value of phenomenology in Elliston's (1975) conclusion of his attempt to integrate the Husserlian and Heideggerian phenomenologies of the other. He ended "with a plea for a philosophical pluralism which respects the Fichtean sense in which the kind of philosophy one chooses depends on the kind of man one is" (p. 6164-A). I would add that the kind of questions people ask determines the kinds of methodologies they choose in the sense in which Coles (1978) argues for the validity of more than one way of knowing:

Percy also showed how the assertiveness of all too many natural scientists (one cannot even begin to discuss in the same breath the dogmatism of social scientists) is derived from an illusion — the illusion of certainty, of knowledge that is sure. And he tried to indicate that the "existentialist" viewpoint . . . need not be opposed to the empirical or rational position. For one thing, we go about trying to affirm ourselves in ways that can be observed and studied. (p. 85)

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Subject

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PRE-REFLECTIVE
      ↓
REFLECTIVE
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Researcher

STIMULATED PROCESS RECALL (SPR)

Review
   Contact Sheets
   Enlarged Prints

Examine
   Selection Processes

   Influences Independent
   of Class Instruction

   Influences of Class
   Critiques, Instruction
   upon Photography, Ideas

REFLECTIVITY

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REFLECTIVE
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FUNDAMENTAL DESCRIPTION (FD)

A	Meaning-Units from Taped SPR	Central Theme each unit

Question Set	

B	Central Themes	
	Structure	Style

C	Summary Descriptions	
	Situated Structure	Situated Style

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PRE-REFLECTIVE
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FUNDAMENTAL STRUCTURE (FS)

D	Summary Descriptions	
	General Structure	General Style

E	Final Summary Structure-Style	

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SCIENCE AND AESTHETICS

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Abstract

In this paper nine arguments against the possibility or plausibility of a viable program of scientific aesthetics are critically assessed. Arguments discussed focus on the following topics: the status and relevance of low-level aesthetic generalizations, the complexity of aesthetic phenomena and simplification inherent in the experimental situation, the plausibility of developing adequate aesthetic theories, explanation and prediction of aesthetic reactions and preferences, and creative activity. I conclude that the arguments discussed are not logically persuasive, and that scientific aesthetics constitutes a viable research program.

Aesthetics and Science

Although considerable effort has been devoted to the development of scientific aesthetics since the publication of Fechner's *Vorschule der Aesthetik,* this research program has been the target of numerous criticisms. Some of the criticisms are of philosophical origin and aim at establishing that scientific aesthetics is impossible, implausible, or irrelevant to aesthetics proper (Dickie, 1962; Wittgenstein, 1966; Carmichael, 1976). Other criticisms reflect the current dispute over psychology's scientific status (Koch, 1971; Gergen, 1973; Finkelman, 1978); if psychology is not properly classed as a science, then psychological findings in the domain of aesthetics cannot be given scientific status. Finally, some psychologists argue that the findings of scientific aesthetics are trivial or

insignificant; Lindauer, for example, claims "the experimental approach and treatment of the problems of the arts, conducted in a laboratory setting where the relevant dimensions are isolated and manipulated under controlled conditions, is unproductive, trivial, and without significance to the essential questions and theories of art" (1973, p. 460). This paper takes up nine arguments to the conclusion that a scientific aesthetics is impossible, implausible, or yields trivial results: (1) specification of a low-level generalization is necessary for the scientific explanation of an event, but there are no such aesthetic generalizations; (2) even if we could attain low-level aesthetic generalizations it would be odd to say they explain specific aesthetic reactions or responses; (3) prediction is essential to science, but, in the absence of low-level generalizations, predictions in the aesthetic domain cannot be attained; (4) since there is no homogeneity to the class of aesthetic reactions or preferences, any generalization proposed would be falsified; (5) the complexity of aesthetic phenomena effectively precludes employment of the scientific testing technique in which we vary an independent variable under controlled conditions and observe changes in the dependent variable; (6) the simplification inherent in the controlled experiment results in focusing on isolated, arbitrary or trivial aspects of aesthetic phenomena; (7) since there are no established low-level aesthetic generalizations, there is nothing to be accounted for by a higher level aesthetic theory; (8) even if we had established low-level

aesthetic generalizations, it is hard to imagine what sort of theory could be said to account for them; (9) although much of human activity can be understood within a problem-solving framework, artistic creativity is not a species of problem solving. I argue that none of these arguments is logically persuasive and that scientific aesthetics constitutes a viable research program.

Argument 1

Science is essentially concerned with the explanation of particular facts or events. To explain an event is to derive a statement describing it from other true empirical statements, at least one of which must be a low-level generalization (LLG). Thus, specification of a LLG is necessary for the scientific explanation of an observable event. However, there are no homogeneous cross-cultural samples of aesthetic reactions to objects, e.g., no unanimity of preferences or aesthetic judgments. Hence, we cannot attain low-level aesthetic generalizations (LLAGs). From this it follows that aesthetic reactions cannot be scientifically explained.

This argument can be directed against either the possibility or plausibility of establishing LLAGs. If it is directed against the possibility of establishing LLAGs, the argument begs the question or commits the fallacy of ignorance. Since psychological aesthetics has been a somewhat neglected research domain, we cannot merely assume there are no homogeneous cross-cultural samples of aesthetic reactions, for doing so begs the issue against the possibility of establishing LLAGs. The commonplace claim that taste reigns in aesthetic matters is reason for initial skepticism with respect to scientific aesthetics. However, if adopted a priori, it makes an idol of our ignorance. Even if it were true that no LLAGs have been established, this might merely reflect our present inability to establish them.

However, in order to avoid setting up a straw man against the anti-theorist, let us assume that his argument is inductive and intended to prove the implausibility of establishing LLAGs, i.e., (P_1) Numerous attempts have been made to establish LLAGs, (P_2) No attempt to establish LLAGs has been successful, hence, (C) It is probable that LLAGs cannot be established.

The questionable premise here is P_2. If we regard a LLAG as a universal generalization (ULLAG) expressing the preference reactions or aesthetic judgments of people to complex artworks, then, since there are no currently accepted ULLAGs with respect to such objects, P_2 seems true. In fact, there do not seem to be ULLAGs with respect to preferences for simple stimuli such as colors, tones or shapes. For any proposed ULLAG there seem to be negative instances. However, this fact is not sufficient to establish P_2, for it is statistical generalizations (SLLGs) which one expects to find in the initial stages of research in any social science. Hence, the question is whether there are significant SLLAGs.

Let us first examine preference experiments dealing with simple stimuli. H. J. Eysenck's (1940, 1941, 1957, 1968, 1971) research program using simple polygons, colors and odors provides strong evidence for the existence of a general factor and a bipolar factor in the preference judgments of British subjects. Eysenck argues that this general factor extends over all the sense modalities, is in part dependent upon objective stimulus properties, and is independent of teaching and tradition. He hypothesizes that it is biologically based and derives from the nature of the nervous system. When the influence of the general factor is eliminated in analysis of the data, a bipolar factor emerges which is attributable to personality and/or learning.

Three important questions emerge from Eysenck's research based upon

British subjects and simple stimuli: (a) Is there transcultural evidence for such a general factor using simple stimuli? (b) Is there evidence for a similar general factor using subjects from one culture and complex artworks or aesthetic objects as stimuli? And if there are general preference orders for simple and complex stimuli, how are they related? (c) Is there transcultural evidence of a general factor using complex artworks or aesthetic objects as stimuli?

With respect to (a), using simple color patches Eysenck (1941) finds there is significant agreement among Whites and Blacks, East Indians, Japanese, Chinese and Mexicans. He also shows by a re-analysis of previous data, which seemed to indicate that there is no order of preference for colors, that the data actually support the hypothesis of a biologically based order of color preference. Recent transcultural studies using polygons also support the conclusion that such a general factor is biologically based. A comparison of British and Japanese subjects (Eysenck & Iwawaki, 1971) reveals that cultural relativity is largely absent when polygons are used as stimuli. A study of British and Egyptian subjects reveals considerable evidence against the hypothesis that there are large cultural differences in preferences for polygonal figures (Soueif & Eysenck, 1971). This type of data supports Pratt's claim that "In the field of sensory dimensions — colors, brightness, pitch, loudness, odors, tastes, pressures, temperatures, etc. — the uniformities of judgement, *under controlled conditions of laboratory observation,* are so high that the question as to whether they are absolute or relative has long since ceased to exist as a serious problem in psychophysics. The judgements are stable, verifiable and repeatable . . ." (1956, p. 8).

Question (b) is important because holistic aestheticians often deny that preference judgments with respect to simple stimuli are relevant to preferences for complex artworks. There is surprisingly scant data with respect to this issue, but some support for an atomistic hypothesis. Granger's research (1955a, 1955b, 1955c) indicates that there is a general order of preference for intervals along each dimension of color: hue, saturation and brightness. He demonstrates that preferences for quite complex color combinations can be accurately predicted on the basis of component preferences and the interval between components. Furthermore, Granger argues that scores on such color tests have predictive value with regard to tests involving preferences for abstract aesthetic designs. Eysenck (1941, 1957) also finds a positive correlation between preferences for a set of saturated hues and preferences for reproductions of artworks. Furthermore, in experimenting with simple polygons, complex designs, and artworks, he finds (1940) a general factor in each of eighteen tests, and argues that the factors are not test specific, but general from test to test. Thus, with respect to British subjects, there is some evidence for the atomistic hypothesis, and evidence for a general factor in preference for complex aesthetic objects.

Regarding question (c), the data are scant and the results somewhat mixed. Early research seemed to point to the conclusion that preference reactions to artworks are culturally and not biologically based. McElroy (1952) reported little agreement between Australian whites and aborigines, and Lawlor (1955) found no significant agreement between African and British subjects. However, Lawlor's sample was quite small, and Berlyne, Robbins and Thompson (1974) have recently reported significant similarities in the responses of Ugandan and Canadian subjects to complex visual patterns. Similarly, Morris (1956) finds consider-

able agreement among Indians, Chinese and Americans with respect to preferences for paintings. Machotka (1963) reports significant preference agreement between American and French children. Using designs, Eysenck and Iwawaki (1971) find considerable similarity in the preferences of British and Japanese subjects. Finally, Berlyne (1976) reports cross-cultural similarities in the preference responses of Indian and Canadian subjects to artworks.

The recent work of Irvin Child also indicates statistically significant transcultural agreement in aesthetic judgments. Child's research focuses on the preferences and/or judgments of art experts or connoisseurs with respect to complex artworks. He argues that there are personality attributes that characterize connoisseurs, so that we have an independent, non-circular way of specifying this class, and then investigates whether connoisseurs agree in aesthetic preference and/or judgment. Within specific cultures Child finds that "agreement is demonstrable by statistical analysis, and is such that averaging the opinion of a group of connoisseurs can give, for works varying widely in merit, an extremely stable standard" (1969, p. 882). Child has also conducted extensive transcultural studies of the aesthetic reactions of connoisseurs. A study (Child & Siroto, 1965) using BaKwele masks revealed statistically significant agreement among African and American experts. Using artworks, significant agreement was also found among American experts and: Islamic experts (Anwar & Child, 1972), Japanese potters (Iwao & Child, 1966; Iwao, Child & Garcia, 1969), Fijian artisans, and Greek craftsmen (Ford, Prothro & Child, 1966).

Thus, there is evidence that preference orders with respect to artworks extend across cultural boundaries. We have significant transcultural SLLAGs regarding preferences for both simple stimuli and complex artworks. The data are by no means conclusive, but they are sufficient to undercut the a priori assertion of many philosophers that aesthetic preferences are obviously culture-relative and solely the result of training. Hence, on the whole, there seems to be no reason to accept argument (1) against the program of scientific aesthetics. Of course, the SLLAGs obtained could perhaps be accounted for by the hypothesis that transcultural preference agreement is merely the result of cross-cultural influences. Eysenck (1957, pp. 315-24), however, finds strong evidence that preference agreement is biologically based, a conclusion reinforced by Peckham (1965; 1969). And Child, whose research is carefully designed to avoid the factor of cultural influence, proposes that the basis for transcultural agreement is "the independent discovery, by people in differing cultural traditions, of similar facts about the adequacy of particular works for satisfying aesthetic interests" (Iwao & Child, 1966, p. 33). On the whole, then, there are SLLAGs in aesthetic preference and judgment, which undercuts argument (1), and the available evidence favors the hypothesis that the agreement found is psychobiologically based.

Argument 2

A particular physical fact is explained by reference to a LLG of, say, physics or chemistry. But, even if we could specify LLAGs, there would be something odd about the claim that LLAGs *explain* aesthetic reactions or preferences. It would be odd to claim to have explained a person's reaction of disgust to a painting by stating that all or most people react to it with disgust.

This argument grants that we do, or could, have LLAGs, but questions whether they provide explanations. Although we do not at present have

established ULLAGs, let us assume their availability. Then, *if we accept* the standard empiricist law-deductive model of scientific explanation, ULLAGs do explain aesthetic reactions. If all people have aesthetic reaction X to object O, and P is a person, this entails that P has reaction X to object O. On this account, to explain the occurrence of an event is simply to derive a statement describing it from other true empirical statements, including a ULLG. In the aesthetic example the pattern of explanation is no different from the deductive derivation of "This metal contracts when cooled," from "All metals contract when cooled," and "This is a metal."

However, there is some plausibility to the claim of Wittgenstein (1966) and others that, even if we possessed ULLAGs, it would be odd to say that they explained a particular aesthetic reaction of a particular person. It would seem odd to say that the fact that all people prefer O_1 over O_2, and the fact that P is a person, explains why P prefers O_1 over O_2. However, there is no reason to think that scientific aesthetics differs from physics in this respect, for some philosophers of science claim that the explanation of *particular* facts plays no role in theoretical science. For example, Alston (1971) argues it would be odd to claim that, the fact that metals contract when cooled, and the fact that this is a metal, explains why this metal contracts when cooled. He allows that scientists are concerned with particular facts or events when they *test* a ULLG. Thus, "Metals contract when cooled," is tested by cooling, say, an iron bar and observing whether it contracts. However, in testing a ULLG, the scientist does not explain the fact that this iron bar contracts when cooled; he only has to observe that it is a metal and that it contracts when cooled. To test the ULLG he notes whether the variables are instantiated; he does not

explain why a particular event occurred.

Although science undoubtedly has an explanatory role (and we will take this up in discussing arguments (3), (4), (6), and (8)) it does not, on this account, explain particular facts. Hence, while it would be odd for the aesthetician to utilize a ULLAG to explain why a particular person reacted with disgust to a painting, it would be equally odd for a chemist to explain why a particular piece of litmus turned blue when exposed to ammonia in terms of the ULLG that all litmus turns blue when exposed to a base.

The upshot is that, if there are ULLAGs, the defender of argument (2) faces a dilemma. Particular facts are or are not explained by ULLGs. If we accept the standard empiricist account of explanation, then ULLAGs do explain particular aesthetic facts. On the other hand, if we allow that ULLGs do not explain particular facts, then ULLAGs do not explain particular aesthetic facts. But this does not preclude the enterprise of scientific aesthetics unless we wish to allow that the enterprise of physics is precluded because the ULLGs of physics do not explain particular physical facts.

Let us now consider argument (2) under the assumption that we possess SLLAGs, but not ULLAGs. If the claim is that SLLAGs do not explain (in the sense of deductively entail) statements about particular facts, this is, of course, true. From "Most people prefer O_1 over O_2," and "P is a person," we cannot deductively derive "P prefers O_1 over O_2." Statistical syllogisms confer only inductive probability on their conclusions. It has been claimed that such inductive accounts are not genuine explanations, but if we accept this alternative we shall have to allow that the statistical generalizations of quantum mechanics and statistical mechanics do not provide us with

genuine explanations. Furthermore, SLLGs are predominant in the social sciences, and it certainly seems reasonable to assert that, say, Durkheim's SLLG linking suicide with social classes and types inductively explains why a particular person committed suicide. Again, there seems to be parity between scientific aesthetics and other accepted sciences.

Let us also note that, although a statistical syllogism having a conclusion about a particular fact and a SLLG as a premise is inductive, there are deductively valid arguments containing SLLGs as premises. If it is true that 22 percent of all Americans will develop a cancer, and true that there are 200 million Americans, then it is true that 44 million Americans will develop a cancer. Of course, it does not follow that if Jones is an American, he will develop a cancer. What is deductively explained is not a particular event, but rather, what has been called a "mass" or "aggregate" event. Accordingly, we could agree with the defender of argument (2) that SLLAGs do not explain particular events, but claim that they do deductively explain aesthetic aggregate events.

Finally, the defender of argument (2) might claim that, just as in the case of ULLAGs, it would be odd to say that SLLAGs explain either particular or aggregate aesthetic facts. Again, we could allow with Alston that SLLAGs do not explain particular facts, but claim that scientific aesthetics is on a par with the other sciences employing SLLGs. That is, we could allow that the psychologist is concerned with particular facts when he tests the SLLG "Frustration tends to produce aggression," but acknowledge that, in testing a SLLG, we do not explain particular facts.

In short, if we accept the standard empiricist account of explanation, according to which SLLGs enter into the inductive explanation of particular facts, or the deductive explanation of

aggregate facts, then, given that we have SLLAGs, there is no reason to think that scientific aesthetic explanations do not fit these patterns. On the other hand, if the argument is that SLLAGs do not enter into explanations of particular facts, it is not because of the *aesthetic* character of such SLLAGs, for the same claim can be made with respect to any standardly accepted SLLG in any branch of science.

Argument 3

Prediction is essential to science, and rests on our having LLGs. In the absence of established LLAGs, prediction of aesthetic reactions, preferences, or judgments cannot be attained.

This argument can be met in either of two ways, depending on whether we regard prediction as essential to science. According to the standard empiricist account of scientific method, prediction is essential to science. Whenever we test a LLG we make a prediction based on the law and then see if the facts turn up as expected. If what is predicted obtains, the law is confirmed; if not, it is disconfirmed. Now if, as I have argued, there are LLAGs, and if we accept this model of scientific method, then there is every reason to think that aesthetic reactions are predictable. In fact, we noted that Eysenck and Granger claim predictive power for their LLAGs.

On the other hand, predictive adequacy is less central to the conception of scientific methodology that has recently been advanced by people such as Kuhn (1962), Feyerabend (1962), Sellars (1963), Harman (1965) and Chomsky (1965). On this view we can infer, from the fact that a theory would best explain a LLG, that the theory is true. That a theory provides the "best explanation" of a LLG turns on considerations such as simplicity, explanatory scope and unifying power.

Hence, it is LLGs, and not particular facts, that the scientist seeks to explain. But theories do not explain LLGs by entailing them, as the standard account would have it, for if a theory is true the LLGs explained are, strictly speaking, false. Thus, the general gas law is false, in the strict sense, if the kinetic theory is true. Now, if entailment is not necessary for scientific explanation, then prediction, which on the standard empiricist account of science is symmetric with explanation and also based on entailment, may be somewhat beside the point. For example, both Uranus and Mercury were found to deviate from positions predicted by Newtonian mechanics. Yet neither case itself led to a rejection of Newton's theory. In the case of Uranus, an auxiliary hypothesis was successfully appealed to, and the deviation explained. In the case of Mercury such appeals were unsuccessful. However, even this lack of success did not imperil Newton's theory until a "better" theory was devised, for, on this conception of scientific method, any theory fits any set of data more or less adequately. Thus, theories are supplanted by better theories, and not simply rejected on the basis of false predictions. On this account of scientific method, predictive adequacy is not essential. If we accept this account, we cannot place a requirement on scientific aesthetics that does not obtain in the case of physics.

Argument 4

The explanation itself constitutes a test of a scientific LLG. If the event described by the explanation occurs under appropriate conditions, the LLG is confirmed; if not, the LLG is falsified. Since there is no homogeneity to the class of aesthetic reactions, preferences or judgments, any LLAG proposed would be falsified.

A line of reasoning similar to that deployed against argument (3) is suf-ficient to undercut argument (4). On the one hand, if, as psychologists have argued, there is some homogeneity to the class of aesthetic reactions, so that we can devise LLAGs, and if we accept the standard empiricist account of scientific method, then certain LLAGs proposed will be confirmed and others disconfirmed or falsified. Of course if all we have are SLLAGs, and our explanations are inductive, then no particular fact will falsify the SLLAGs. But, if we allow the deductive explanation of aggregate aesthetic facts, then SLLAGs are falsifiable. On the other hand, if we accept the newer account of scientific method, according to which entailment is not necessary for scientific explanation, then, strictly speaking, no data conclusively falsify a theory of either physics or scientific aesthetics. Hence, on either conception of scientific method, scientific aesthetics is on a par with physics.

Argument 5

The complexity of psychological-aesthetic phenomena effectively precludes employment of the scientific testing technique in which we vary an independent variable under controlled conditions and observe changes in the dependent variable. But this testing technique is standardly used in the accepted sciences, and is necessary for a discipline to be classed as scientific; therefore, "scientific" aesthetics is not really a science.

It should be noted, however, that the experimental method is effectively employed in aesthetics; the work of Eysenck (1940, 1941, 1957, 1968, 1971) and Berlyne (1971), for example, is based upon employment of this method. Starting from the study of simple stimuli, they progress to more complex situations, with important results obtained. So it is false that the experimental method is inapplicable to aesthetic contexts.

In addition, in discussing this argument it is important to distinguish *methodological* issues from questions of *testing technique*. The former pertain to the logic of justification, i.e., the general basis for acceptance or rejection of a hypothesis. On the standard empiricist conception of scientific method, testability is methodologically necessary for a discipline to be considered scientific; if a hypothesis is in principle untestable, it is not scientific. But the methodological requirement of testability does not entail that there is just one technique of observation or one technique of experimental testing for science. What works as a testing technique in subatomic physics may not work in astronomy. Of course, where the subject is amenable to it, the experimental method is preferred. But astronomy is not amenable to the controlled laboratory experiment. Since astronomy is a science, experimentation under controlled laboratory conditions is not necessary for a discipline to be scientific. Furthermore, in cases where the controlled experiment cannot be employed, hypotheses involving parallel processing, bidirectional relations, and feedback loops are now being widely employed to represent the multivariate complexity of many psychological systems, and techniques are being devised to test such hypotheses (Campbell, 1969; McGuire, 1973; Cook and Campbell, 1979). Therefore, although complexity may preclude the successful employment of simple testing techniques, it does not preclude testability. Thus, testability is necessary for a discipline to be scientific, but no particular testing technique is necessary and hence, if some areas of psychological aesthetics require testing techniques more complex than the traditional experiment, it does not follow that the discipline lacks scientific status.

Argument 6

The simplification inherent in the experimental situation results in a focus on isolated, arbitrary or trivial aspects of aesthetic phenomena. LLAGs may result, but they are insignificant.

Again, this criticism unwarrantedly assumes that science is restricted to simple linear process hypotheses and simple testing techniques involving manipulation of an independent variable. But it is also important to note that use of such techniques does not itself entail insignificance. In one sense a term is *scientifically significant* (or significant$_1$) only if its referent is connected in a law-like way with other facts (Spence, 1948; Rudner, 1966, pp. 79-83; Brodbeck, 1968, pp. 6-9). Since we cannot determine a priori whether terms have significance$_1$, we must test hypotheses containing them, and the traditional laboratory experiment is one of several testing techniques that may be employed. To test a hypothesis we must be able to tell whether its terms apply, and this requires that they be defined. Definition does not guarantee significance$_1$, but vague or imprecise terms give us laws that are not adequately testable. Precision in definition is necessary, but not sufficient, for significance$_1$. Furthermore, precise specification of scientific terms typically requires the abstraction of certain features from particular events. Laws mention repeatable features of objects; particular events are unrepeatable. Any sort of testing technique will, therefore, abstract from, or "simplify," a particular event. But this does not entail that the phenomena studied are isolated, arbitrary, or trivial in the sense of being insignificant$_1$.

Scientists frequently "simplify" by focusing on molecular rather than molar phenomena, and the latter are often thought to be more important,

meaningful, or valuable (i.e., significant[2]) than the former. In this sense the critics may be correct in claiming that some significant[1] molecular facts are insignificant[2]. However, a molecular approach typically has an explanatory aim; the hope is to provide a "deep" explanation of molar facts or laws (a molar fact is an observable fact, a molar law is a LLG) in terms of molecular laws, as the kinetic theory explains molar gas behavior. Established molecular theories not only functionally relate significant[1] molecular facts, they may enable us to explain significant[2] molar facts. Explanations based on significant[1] molecular facts are themselves significant[2] for the understanding of molar phenomena.

Given significant[1] facts in the molecular domain of a discipline, there is of course no a priori guarantee of a connection between them and significant[2] molar facts; and if there is no connection, the molecular facts may well be regarded as insignificant[2]. There may not even be significant[1] facts at the molecular level. The hypotheses and testing techniques of science are not, however, restricted to the molecular level. Scientists welcome laws wherever they find them, and molar as well as molecular laws may have significance[1]. Molar laws do not enable us to provide the deep explanations of molar facts that we get from molecular theories, but, if successfully established, they do enable us to predict molar facts (Alston, 1971), and this is significant[2]. The molar gas laws, for example, had predictive significance[2] long before formulation of the kinetic theory. The theory, connecting significant[1] molecular facts, eventually provided a significant[2] explanation of significant[1,2] molar laws.

In conclusion, then, established molar or molecular laws have significance[1], molecular laws may have explanatory significance[2], and, if we

accept the standard empiricist account of science, molar laws may have predictive significance[2]; and since the traditional experiment involving manipulation of an independent variable is one way of testing certain types of hypotheses, it follows that use of that technique in aesthetic contexts does not entail "insignificance" in either sense of the term.

Argument 7

The LLGs of science are themselves explained in terms of theories or laws about hypothesized micro-phenomena. Since there are no established LLAGs, there is nothing to be accounted for by a higher level aesthetic theory.

This argument — we can introduce higher level theories to explain LLAGs only if there are LLAGs, but there are no LLAGs; thus, we cannot introduce higher level aesthetic theories — is valid but unsound if there are, as the evidence cited in our discussion of argument (1) indicates, established LLAGs.

Argument 8

Even if we have established LLAGs, what sort of aesthetic theory could be introduced to explain them? What sorts of laws about theoretical entities could be said to account for LLAGs as the kinetic theory accounts for the general gas law?

These questions amount to a challenge rather than a criticism. Given the establishment of LLAGs it is, of course, incumbent on theorists to provide adequate theories. In this context, the following remarks of Chomsky are relevant to aesthetics as well as to language: "We must recognize that even the most familiar phenomena require explanation and that we have no privileged access to the underlying mechanisms, no more so than in physiology or physics. Only the most

preliminary and tentative hypotheses can be offered concerning the nature of language, its use, and its acquisition. As native speakers, we have a vast amount of data available to us. For just this reason it is easy to fall into the trap of believing that there is nothing to be explained, that whatever organizing principles and underlying mechanisms may exist must be 'given' as the data is given. Nothing could be further from the truth . . ." (1968, p. 23).

Now, in one sense, we also have a great amount of aesthetic data available to us. But the data appear to be very heterogeneous, since they encompass our intercourse with literature, music, the plastic arts, dance, etc., as well as natural objects. Hence, in another sense, the recent establishment of transcultural LLAGs by psychologists such as Eysenck, Berlyne and Child gives us the first hard data to work with, that is, the first data that cannot be attributed solely to cultural convention and training. Given such transcultural LLAGs, we can not only proceed to the development of explanatory theories to account for the data, we also have a basis for testing our theories. We can grant that much of experimental aesthetics to this point has consisted merely in establishing *that there are* data to be theoretically explained. Given that data, aestheticians can begin to ask the significant theoretical questions in advance of further experimentation.

In developing explanatory theories, we should take into consideration the fact that aesthetic preference and judgment data are not the only psychological data we possess. We noted that Child finds significant transcultural agreement in the aesthetic judgments of connoisseurs. In another important contribution (1965), he finds significant correlations between the aesthetic judgment of American connoisseurs and *personality* variables such as tolerance of complexity and ambi-

guity, a tendency toward inclusive employment of attention, general independence of judgment, regression in service of the ego, an interest in exploring the possibilities of experience, and an interest in perceiving an object rather than assessing it. Furthermore, the personality characteristics of American connoisseurs are significantly similar to those of connoisseurs from different cultures. Hence, it is reasonable to conclude that aesthetic judgment is not culturally based or merely the result of training, but is to be accounted for, at least in part, on the basis of personality theory. One hypothesis, then, is that there are certain psychobiological aesthetic needs. Indeed, Machotka has recently advanced such an hypothesis: "It seems to me that there is good reason to suppose a need for good form. On biological grounds, one needs to recognize that form in the sense of physical attraction is ubiquitous in the human psyche . . ." (1976, p. 115). Machotka also discusses a number of theoretical constructs such as indirect need discharge, symbolic need satisfaction, ego-defense support, and the need for varied experience, as plausible bases for accounting for aesthetic preferences. It is along these lines that we may be able to develop a theoretical account of aesthetic preference data.

Argument 9

Although various sorts of human activity can be regarded as species of rational problem solving, artistic activity cannot be understood in this manner. In fact, artistic activity cannot be scientifically understood; as Carmichael puts it: "on the one side [i.e., the scientific] everything is open, predeterminate, exactly repeatable; on the other [the artistic], everything is purely aesthetic: dramatically, lyrically intuitive" (1976, p. 404).

The problem here is that artistic activity can also be fruitfully regarded

as a species of problem solving. Howard Gardner (1971), for example, distinguishes two aspects of a problem — conceptualization of relevant factors and execution in a medium — and argues that problems associated with the sciences characteristically emphasize conceptualization, whereas problems associated with the arts typically emphasize execution in a medium. Rather than dichotomizing scientific and artistic activity, this account stresses the continuity among various sorts of problem solving activities. Furthermore, the question of why certain people are artistically creative is a psychological question. We do know that creative artists differ from control groups along a number of personality dimensions (Barron and Welsh, 1952; Child, 1965, 1969, 1972; McWhinnie, 1971). Whether certain motives, interests or needs are common to creative artists, or creative people in general, is an open, but factual, issue.

I conclude that the nine arguments discussed do not preclude a science of aesthetics. Arguments (1), (3), (4) and (7), based on the claim that we cannot attain LLAGs, are invalid because we do have LLAGs with respect to aesthetic preference and aesthetic judgment. The recent transcultural findings of Eysenck, Child, and others, provide strong evidence against the claim that aesthetic preference and judgment are solely the products of training and therefore culturally relative. Argument (2) does not rule out scientific aesthetics because, with respect to the issue of explanation, aesthetics is on an exact par with physics. Against argument (5) we found that, although the complexity of some aesthetic phenomena may preclude use of the traditional experiment, no particular testing technique is necessary for a discipline to have scientific status. In those cases where the traditional experiment is applicable, we argued against argument (6), that its

use does not entail that the results obtained will be either scientifically insignificant$_1$ or insignificant$_2$ in the sense of being unimportant to us as humans. Argument (8) is not persuasive because we not only have LLAGs regarding aesthetic preferences, we also have low-level correlations between preferences and personality characteristics. Thus, it is a reasonable hypothesis that aesthetic preferences may, in part, be theoretically explained on the basis of personality theory. Finally, against argument (9), we indicated that artistic activity may be fruitfully regarded as a species of problem solving activity. And the question of why certain people create artworks is largely a question for personality theory. Thus, scientific aesthetics constitutes a viable research program. Of course, it does not follow that aesthetics is totally exhausted by the research we have discussed, but any comprehensive aesthetic theory should at least be consistent with the growing body of empirical aesthetic data.

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RESEARCH METHODS IN PHENOMENOLOGICAL AESTHETICS

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Theory of Mind

The philosophy of phenomenology was founded by German philosopher, Edmund Husserl, in 1900 (Husserl, 1900-1). The thoughts Husserl articulated seemed to be "in the atmosphere" in 1900. The ideas on which phenomenology is based are similar to thoughts which influenced other philosophers, psychologists, educators, and artists all over Europe. We know that Paul Klee and Vassily Kandinsky worked with similar ideas because they wrote about them (Herbert, 1964). Klee and Kandinsky, along with several others, used their ideas as a basis for the curriculum of the Bauhaus. Similar ideas spawned a revolution in the arts and architecture in Europe.

In working out the structure of phenomenology, Husserl gave these ideas a scholarly authenticity by measuring them against a backdrop of philosophical thought. Thus challenged, his ideas held up, and other philosophers recognized that Husserl, in offering a radical solution to the mind-body problem, had made a significant contribution which had far-reaching implications. Followers of Husserl refined and extended his thought. Most notably, these were Martin Heidegger, Maurice Merleau-Ponty, and Jean Paul Sartre. This paper is based mainly on the works of Husserl and Merleau-Ponty.

Though phenomenology has had wide influence in Europe, it has had only scattered influence in the United States. The humanistic movements in psychology and education were influenced by phenomenological theory.

Viktor Lowenfeld, in art education, was perhaps indirectly influenced by phenomenological theory as were Henry Schaffer-Simmern and Florence Cane.

However, the direct application of the tenets of phenomenological thought in education, including art education, is in its infancy in the United States. In art education, significant contributions in this direction have been made by Beittel (1979), Madenfort (1965), and Tsugawa (1968).

The phenomenological research method is not a widely accepted method of research in the United States. The majority of work in United States educational research is based on the empirical model of research. In fact, what I will call the empirical model of mind, is the dominant model of mind in the scientific community. But also, in a watered down form, the American public in general functions by the empirical model of mind. The empirical model of mind is widely thought of as the only possible model of mind. Empirical or conceptual thought is considered to be the only form of thought deserving to be called by the name, THOUGHT. The empirical model of reality is generally considered to be the only form of reality.

Phenomenology proposes that there is more than one form of valid reality. It says that there are two equally valid forms of reality. Our brain comprehends things through two equally important modes of thought. Each reality has its own mode of thought, its own form of truth and its own means of arriving at the truth.

The empirical mind moves directionally toward a goal. It proceeds in a lin-

ear, sequential form, and is embodied in words, numbers, and other symbols.

The other mode of thought is called phenomenal thought. It produces a form of truth which is emodied in sensory images. Images are the content of the imagination. Images are tangible: they are color, texture, smoke, smells, fire, motion, orange, and they are fear, nervousness, frogs in the throat, and butterflies in the stomach. Images are feelings in all their shades, tones, and moods.

The problem with this phenomenal mode of thought is that it does not seem to be real. Many scholars think of it as mystical, religious, or magical. Feelings are thought to be intangible, foggy, unstructured, and subjective. It is not easy to consider that thought in images is equal to verbal and metrical thought.

Phenomenology proposes that feeling is thought PROPER. This model of mind is particularly relevant to artistic creation. Phenomenology offers a philosophically sturdy model which supports the argument that phenomenal thinking is thought proper. It also proposes that phenomenological thought produces truth which is as valid as any scientific truth. In fact, Husserl proposed that phenomenology can form the base of a science. One component of that science would be called the science of esthesia: the study of feeling.

All of this has direct bearing on the art teacher in the classroom. One of the toughest and most frustrating problems faced by art teachers today is the constant need to justify the relevance of their subject. They may think that art is not considered as important in the curriculum as are reading, English, or mathematics. How many of us have encountered a parent concerned about his child's grade in our class until he discovers that he is talking with the art teacher? Or perhaps when a teacher, upon hearing

that a former student is majoring in art in college, says, "Why he could have majored in anything!" These people do not intend to be biased and many probably do not know that they are biased; they may even voice support of the teaching of the arts in the schools. The point is that the belief that the empirical mind is the only mind is so deeply ingrained that people don't realize they have it.

Phenomenology offers a model of reality which allows that to be truth which we do not normally consider to be truth. For instance, we usually do not consider imaginary things to be real (or true). As an example, Maurice Merleau-Ponty describes a mental patient who complained continually that there was talcum powder on her bed. There was no empirical talcum powder on her bed. The talcum powder clearly was "only in the woman's head," or we might say it was "only in her imagination." But then listen to what we are saying. If the talcum powder is "only" in the woman's head, or "only" in her imagination, we mean that the talcum powder she is experiencing is not real. Yet Merleau-Ponty proposed that the talcum powder in the woman's head is aṣ real as any talcum powder we shake out of a can. He proposed that our basic brain accepts as equally real both empirical data and phenomenal data (Merleau-Ponty, 1962). Thus, the talcum powder in the woman's head is as real as the talcum powder sprinkled from a can. This is a radical proposal. Yet it is a proposal that can support arguments that artistic thought is thought *proper* and not some soft form of thought that is inferior.

Husserl further proposed that it is possible to study phenomenal reality by methods which he outlined. These methods sound deceptively simple. But they are so difficult to apply that researchers have only begun to learn to apply them.

Husserl's major watchword was that

we "must return to the things them-selves," but before we can do that, we must learn to free ourselves of the encrustedness of what Husserl called the "natural attitude." To free our-selves, in Husserl's terms, we must learn to "bracket" the habitual, ordi-nary world and hold it in abeyance. Once the habitual world is bracketed we are able to look with raw vision into the depth of things, that is, we are able to return to the primordial level of things.

Methods of Research

Husserl's research methodology in-volved three levels. They are as fol-lows:

Stage I. The Natural Attitude

The notion here is that for the most part we live in a world of habit, a world of repetition, of monotony — a pre-judged world. The habit by which we live in the world encrusts the world with what Husserl called "sediment." Habit sediments our thought the way barnacles encrust the hull of a ship. The sediment consists of historical traditions and rituals which build up all during our individual lives. All of us regularly live in the natural attitude and participate in it in order to get through each day. We could not sur-vive unless we were able to form this sediment. We need it to function prac-tically. If we were to meet every little life event of every instant with fresh "vision," as if we have never seen it before, we would be overwhelmed and frightened and would be unable to function. The natural attitude gives us security and safety. We find stabil-ity looking at the world in verbal and quantitative terms. That is, we mea-sure our world by answers to such questions as: how much, how long, how far, how often. We use clock and calendar time, which is measured time. We want to know how tall we are, how wide we are, how old we are, and so

on. In these verbal and metric param-eters we find security, constancy, sta-bility, and orientation. In measurable, often numerical, identifiable ways of seeing the world, we, for the sake of security and safety, bind our world in pre-ordered limits. Yet these very safety measures which we so desper-ately need for our comfort or for our very survival often obscure and hide the world from us (Allen, 1979).

The phenomenologist will try to get out of the natural attitude so the ob-ject can be freed, and in the freeing of the object of sediment, we ourselves are more free as well. But the phe-nomenologist must endeavor again and again to release what we can from its sedimented, prejudice encrusted, habitual experience. He cannot re-move the sediment from every object in the world all at once. One tries (as when one peels back the layers of an onion) to free the object very slowly. But as soon as one perspective is rela-tively freed, another one is coming up and so the layers unfold endlessly and the task of unfolding them is endless.

When we are trying as phenomenol-ogists to free the objects in our world of sediment, there are an infinite num-ber of types of sediment that encrust so that we can never pull it all out at once. We can only pull out parts of the sediment and see different aspects of the object at different times, in as many different ways as we can.

Stage II. Eidetic Variation

At the beginning of the stage of eidetic variation we must perform what is called an *epoché* — a bracketing of the natural attitude. We do that by looking at as many different views or aspects of an object at as many dif-ferent times, in as many different ways as we can. We find ourselves looking at what Husserl called the "profiles" of objects. As the profiles turn before our "vision" we see myriad "eidetic" or "imaginative" variations. These vari-

ations are infinite. They unfold much as musical variations unfold. There is a multitude of unfolding profiles which are criss-crossing and overlapping.

Andy Warhol showed us 24 hours of the Empire State Building. There seemed to be nothing happening. Perhaps we saw more changes when Monet painted profiles of the Rouen cathedral in the light of various times of day from dawn to dark. In this series of unfolding profiles of light, these artists showed us what they saw when they peeled back the opacity of the natural attitude.

Slow motion photography lets us see into the intricate happenings of an event in motion which in natural time happens too fast for our eye to see. Time-lapse photography lets us examine processes that unfold too slowly for us to see naturally. Both these photographic techniques bring to us events which happen outside the normal constancies of space and time. When we remove ourselves from the natural attitude, we no longer adhere to a constant space and time. Outside empirical space and time we may stretch or shrink space and time at will. For instance, if I am late I tend to stretch time so that I may be allowed to complete all my chores and still be on time. Unfortunately, the clock does not cooperate. In the natural attitude, we live in constant space and time. Outside the natural attitude — in the realm of the phenomenal — space and time are elastic.

In attempting to bracket the natural attitude, one tries to be beside the quantitative or designating questions like, "What is the object and why does such and such happen?" We try to answer questions about how the object is given. We try to study how an object comes to us rather than asking what the object is.

As an example of this questioning, I quote from Merleau-Ponty's essay, "Eye and Mind" (Merleau-Ponty, 1964).

In this quote, Merleau-Ponty is asking himself how the body of water, nestled among the cypress trees, is given to him. But he is also thinking of the visual artist and asking what the visual artist sees before he tries to paint the water:

> . . . as Klee said, the line no longer imitates the visible; it 'renders visible;' it is the blueprint of a genesis of things. (p. 183)

> What the light designs upon our eyes, and thence upon our brain, does not resemble the visible world . . . (p. 171)

> Ultimately the painting relates to nothing at all among experienced things unless it is first of all 'autofigurative.' It is a spectacle of something only by being a 'spectacle of nothing,' by breaking the 'skin of things' to show how the things become things, how the world becomes world. Apollinaire said that in a poem there are phrases which do not appear to have been *created*, which seem to have *formed themselves*. And Henri Michaus said that sometimes Klee's colors seem to have been born slowly upon the canvas, to have emanated from some primordial ground, 'exhaled at the right place' like a patina or a mold. Art is not construction, artifice, meticulous relationship to a space and a world existing outside. It is truly the 'inarticulate cry,' as Hermes Trismegistus said, 'which seemed to be the voice of light.' And once it is present it awakens powers dormant in ordinary vision, a secret of preexistence. When through the water's thickness I see the tiling at the bottom of a pool, I do not see it *despite* the water and the reflections there; I see it through them and because of them. If there were no distortions, no ripples of sunlight, if it were without this flesh that I saw the geometry of the tiles, then I would cease to see it *as* it is and where it is — which is to say, beyond any identical, specific place. I cannot say that the water itself — the aqueous power, the sirupy and shimmering element — is *in* space; all this is not somewhere else either, but it is not in the pool. It inhabits it, it materializes itself there, yet it is not contained there; and if I raise my eyes to-

ward the screen of cypresses where the web of reflections is playing, I cannot gainsay the fact that the water visits it, too, or at least sends into it, upon it, its active and living essence. This internal animation, this radiation of the visible is what the painter seeks under the name of depth, of space, of color. (p. 181)

At the level of eidetic variations, I start to free the object from its sediment by attending to the various perspectives or profiles from which the object is given to me. In this writing Merleau-Ponty speculates that the things he sees (a body of water, in this case) are not given to him already assembled. They come unassembled and each of us puts his own product together. Merleau-Ponty says that things have an internal animation — what we see is a radiation of the visible. The water is simply a visual power (light), an active and living element which is a web of playing reflections. All this, he says, lie 'dormant in ordinary vision, a secret of preexistence that seems to have emanated from some primordial ground.' What he sees is the invisible, the silence, the ground. It is the "voice of light," "an inarticulate cry" which is the secret of the preexistence of things — a playing, an animation, a radiation, a shimmering, an unfolding which is active and living. What we see at the level of the primordial is a physical power. It is not things, or words; it is a tangible power which has animation, is playing in random motion and is nondirectional in its movement. The body of water appearing to Merleau-Ponty is not identified as a "pond" or measured. He looks at what is given as the body of water and he sees the active and living power of light playing.

At the stage of imaginative variation we may form what is called a phenomenological description. Sometimes these descriptions may seem like streams of consciousness or even like poetry. Yet, they are neither. They are between the two because our language is very limited and it is very hard to make good descriptions. It is hard to rid ourselves of the natural attitude and see through to the primordial, but it is also difficult to describe what I see when I look at the primordial. In trying to describe what I see when I look at the primordial, I am describing my experience as I live it. What I am seeing and describing is what phenomenologists call "lived experience." Lived experience is not universal except that we live in the same environment or world and have similar bodies and sensory organs. Lived experience is personal and unique to each person.

Following are examples of phenomenological description:

> As I walk, my forward movement carries me into areas inhabited by smell. Each area has different smells abiding in it. Certain smells are common to some adjoining areas, while others form borders by cutting off quickly as my body passes a certain point in space. Some smells form an integrated interface with adjoining areas, fading out slowly after the dominant odors creating the boundaries of an area have cut off, but disappearing before the odors of the other space they have entered into have begun to fade, thus respecting or creating the sovereignty of the space defined by a dominating odor or set of odors, which is what I have called an area. (Russell, 1978, p. 45)

> As I walk, the background odor modulates gently, for not all its components are equally present in all points of space. The shifting intensity of odors within this constant mixture gives me awareness of it far more readily than when I stand still. (Russell, 1978, p. 45)

> Standing still, without wind, a blank experience of smell eventually emerges. Leading up to this, a variable consecutive series of appearances and disappearances occurs. When I stop, the odor of my body and clothing, which has been trailing behind me, catches up and enters into the area of defining and dominating odor. . . . (Russell, 1978, p. 45)

'Rooms' of odor move over me in the wind in much the same way I move through them when I walk. The density of crescendos and then decrescendos and I am once again out of the areas. A stronger wind appears to move odor more quickly, so in the space of a single intake of a crescendo-decrescendo cycle may be captured. (Russell, 1978, p. 48)

There is a definite difference between the density and the intensity of an odor. An odor may densely fill a space without being intense. The smell of new-mown grass is an odor that can fill an area of space very densely; however, it will fade from perception fairly quickly, unlike the intense and dense smell of gasoline spilled from a lawnmower. The smell of gasoline is intense even when its density is very low. (Russell, 1978, p. 48)

It is true that we experience the difference in feeling between the glowing green of a leaf when it is filled with sunlight, and the ringing of a bell when it is filled with sound, for we have learned to differentiate color and sound. But our body does not only live the differences between, it also lives the features in common to both. It feels the brightness in the ringing of the sound as identical with the brightness in the glowing of the green. When we say that we see the greens ringing with the afternoon sun, we mean that we have learned to live the similarities in feeling between color and sound as our body lives them. (Madenfort, 1967, p. 82)

Gazing up at the leaves on a warm sunny afternoon while walking through an avenue of elm trees, we see the leaves as structures upon structures of greens. Translucent yellow greens, ringing with the afternoon sun, burst forth from dark, deep, blue greens and warm, reddish orange greens. Forming a series of planes and floating between flickering, cool, reflected blues they recede into the distance. (Madenfort, 1967, p. 78)

Looking out upon the greens of leaves on a warm summer evening when the sun is very low has a quite different expression from the greens in the afternoon when the sun is high. Gone are the ringing, translucent yellow greens bursting forth from dark, shadowed blue greens, for in its place are delicately suspended greens burning quietly with an inner, cool, yellow glow undisturbed by a deep hollow of crisp blue and lime green planes whispering through each other. As the moments pass, the cool, yellow, inner glows slowly merge into hushed milky greens modulating from greyed tones to almost black. The whispering lime greens can no longer be heard, for the silent darkness pervades. (Madenfort, 1967, p. 80)

First of all, as if far away, barely audible quiet drummings like beginning intermittent raindrops pitter-pattering unobtrusively evoke an atmosphere of uneasiness, a disturbing stillness, a feeling of something impending. Then delicately light and mysteriously bright, they steal in and about a muttering underlay of raspy metallic brushing and restless sliding. We are moved by the subtlety and variability of the percussive clusterings, the many finely woven textures of differing rhythms and tonal effects. And, as their quiet, still inconspicuous manner diminishes and the drummings begin to quicken and become more agitated and build with a punctuated urgency, we too rouse steadily and blend with their impelling force.

We are involved, thoroughly fused, at one with the vibrancy and energy of the sound dance, moving as we are moved. We are twisting excitedly with its kaleidoscopic turnings, its exalting resonance and rhythmical radiance — erupting, breaking forth, letting loose, crescendoing, wrenching the tempt, screwing-up the tonality — banging nobly away. Brisk, brassy, bouncy, flip — sharp whacks, staccato cracks, lustrous flashes, lightening speed smashes, whopping crashes, cacophonous clashes — a roaring exhilarating "yea." (Madenfort, 1978, p. 11)

Painting:

When we see the space of the painting as the space of time moving presently and continuously whole, we are seeing space moving presently while seeing

space futuring and space passing past simultaneously. We are seeing blue space. We are seeing space blueing. We are seeing as we are being seen. We are seeing blue and blue is seeing us, and we are seeing blue blueing us. We are being and becoming blue. We are blueing. We are the blueing present, blueing presently, presently futuring blue presently blueing past. We are blues blueing, blueing blue blueing blues green, blue greens blueing greens greening blues blue green. Out of the blueing present, future blues appear blinking, twinkling, widening, intensifying, spreading, extending — presently blueing past, presently futuring a new future blue. A cerulean blue gliding wide, gliding widening blue cerulean wide, blueing a dancing. We are blues dancing the whole of the painting wholly blue.

In dancing blue, in blueing spatially and temporally, in feeling ourselves continuing wholly and openly blue, we are forming blue. We are forming the sensuous life of the painting. (Madenfort, 1976, p. 12)

When you have a phenomenological description, you have something very different from what you have in the natural attitude. Now you are taking all your experiences of an object — the contents of a multitude of unfolding profiles — and criss-crossing them. Husserl called it overlapping or pairing of the experiences. His notion is: you have the blueing and the sparkling and all the shimmering, unfolding profiles; you do not have just one experience of an object because all the profiles interweave, as Merleau-Ponty put it. It is a sort of synaesthesia. It is a whole interweaving of perspectives of profiles of sensory experience. As you overlap or criss-cross these experiences, which come to you in an overlapping way, the past, present, and future blend. Once you are within the attitude of eidetic or imaginative variation, there is a sense in which it is only there that the object can truly take on its fullness and depth. It is

only at this level that the object can become alive, and that it can fully present itself to us. (Allen, 1979)

Stage III. Transcendental Analysis

This is the stage where the phenomenologist looks back over what he performed for the epoché. This is the analysis, the critique, where one looks at what was done, how well it was done, what was missed and so on. At this time we analyze whether what we saw in the epoché matches any pre-ordering idea. It should not have followed a pre-designed pattern. In the epoché we do not want to infer our experience or to experience what we expect to experience; otherwise the bracketing of the natural attitude would not have been complete. If when we are studying smell at the primordial level, we discover that smell fills space, we may experience this because we expected it. If the bracketing is complete, our sensing comes to us randomly without pre-design.

The Phenomenological Aesthetic

In the phenomenological scheme of things there are two modes of aesthetic thought. The first aesthetic thought is linear; the other is random.

Linear aesthetic thought is concerned with art products, history, criticism, and education in the arts. This aesthetic is an indispensible tool for arts professionals. It forms the basis for making judgments in art. We want to be able to judge what is and is not art, what is good or bad in art, and what is beautiful or ugly in art. The linear aesthetic systematizes art products into series, categories, and values. It gives a body of knowledge which is not available to us by any other means, and it is knowledge we need to have. It is an indispensible way of knowing in the arts. There is no need to choose between the two aesthetics. Each has its own function. We need both.

The phenomenological aesthetic is not concerned with art products. Its concern is with what happens before the product comes into being. The questions asked by the artist are about how the world is given. The artist cultivates access to what phenomenologists call the primoridal world. This world is not a world of "things." It is a world of living experience — of the radiation of turning profiles in a web of random motion. The artist is the genius of the phenomenal world. He is able to jump into it. His art work, according to Madenfort, is the embodiment of the phenomenal (Madenfort, 1967).

According to American philosopher Albert Tsugawa, the phenomenological aesthetic has the nature of that which would be the opposite of anaesthesia (Tsugawa, 1967, p. 14). Anaesthetic and anaesthesia are common terms in our language. We understand the terms to mean a loss of feeling. In a state of anaesthesia we are numb or unconscious. When the anaesthesia wears off, feeling returns.

But it seems odd to use the term "esthesia"; yet, esthesia is feeling, and the phenomenal aesthetic is the science of esthesia. The phenomenologist, and especially the artist as natural phenomenologist, study the esthesic in consciousness. Artists have told us that we are living in a perpetual, fluxing esthesic bath which is present with us every instant we live. Kandinsky tells us about the esthesic bath in which he lived:

On my palette sit high, round raindrops, puckishly flirting with each other, swaying and trembling. Unexpectedly they unite and suddenly become thin sly threads which disappear in amongst the colors, and roguishly skip about and creep up the sleeves of my coat. . . . (Werner, 1961, p. 71)

As a thirteen- or fourteen-year-old boy I bought a box of oil-colors with pennies slowly and painfully saved. To this very day I can still see these colors coming out of the tubes. One press of my fingers and jubilantly, festively, or grave and dreamy, or turned thoughtfully within themselves, the colors came forth. Or wild with sportiveness, with a deep sigh of liberation, with the deep tone of sorrow, with splendid strength and fortitude, with yielding softness and resignation, with stubborn self-mastery, with delicate uncertainty of mood — out they came, these curious, lovely things that are called colors. (Werner, 1961, p. 71)

Other artists have written about the aliveness of the things around them when they cease to be things and become living, flickering light, and color. Paul Klee said that he stood in the forest and looked at the trees; eventually the trees came alive and looked back at him (Merleau-Ponty, 1964, p. 167). Mondrian was so affected by the forms of trees that he could not eat a meal facing the window. To Van Gogh the trees came alive, moved, swirled, and writhed. The lights in the cafe and the stars in the sky gave off circles of pulsing light.

It is when we give simultaneous notice to the figure and the ground that we notice the unfolding, and with the vision of their unfolding, we also get their randomly, radiating, shimmering aliveness. We are taught to pay attention to the figure and ignore the ground. Visual arts students often must learn the painful lesson of noticing equally the positive and negative spaces in their art works. They are habitually accustomed to thinking of the ground as nothing.

But the artist and the aesthetician do not think of the ground as nothing. It is an important force in their work. They call it ground, silence, and the invisible. In the following work by Gertrude Stein the spaces between the words are as important as the words themselves:

It was tomorrow which was yesterday and it was exciting, it was the first time I had ever been present when any-

thing of mine had been played for the first time and I was not nervous but it was exciting, it went so very well. English dancers when they dance with freshness and agility and they know what drama is, they like to dance and they do know what drama *is,* it all went so very well, each time a musician does something with the words it makes it do what they never did do, this time it made them do as if the last word had heard the next word and the next word had heard not the last word but the next word.

After all why not.

I like anything that a word can do. And words do do all they do and then they can do what they never do do. (Stein, 1937)

The artist's task is to maintain access to the primordial in experience. Yet, this may be painful. Kierkegaard said of the artist:

A poet is an unhappy being whose heart is torn by secret sufferings, but whose lips are so strangely formed that when the sighs and the cries escape them, they sound like beautiful music.

And men crowd about the poet and say to him: 'Sing for us again;' that is as much as to say: 'May new sufferings torment your soul, but may your lips be formed as before; for the cries would only frighten us, but the music is delicious. (Kierkegaard, 1946)

Maintaining access to raw feeling means that the artist must resist habituation in perception. The artist maintains access to raw vision of experience, and tells us about it in his art works. British aesthetician, R. G. Collingwood says that the artist, by telling us the secrets of his heart, tells us the secrets of our own hearts (Collingwood, 1958). The artist helps us perform the bracketing the phenomenologists speak of.

The truth the artist tells is his own. It may reveal us to ourselves. The artist's truth is true in the way Edna St. Vincent Millay described it:

I know what I know.
The sun is hot on my neck and I observe

The spikes of the crocus.
The smell of the earth is good.
It is apparent there is no death.
(Millay, p. 53)

Phenomenology and Art Education

Hiram Williams, professor of art at the University of Florida, wrote a book about teaching art in which he said that teaching art doesn't travel in a straight line. You may tell a student something and he will not change his artistic behavior at all then, but five years later something happens to him and he will say, "THAT'S WHAT HIRAM MEANT!" (Stephens, 1978).

This idea of teaching art as being something not directly in the art teacher's control is not consistent with the prevailing model of mind which assumes that the student will directly understand and be able to apply what the teacher teaches. Education in this light is based on the idea of a sort of $2 + 2 = 4$ model of mind where the student directly learns and applies what the teacher teaches.

This prevailing model of mind is what I have mentioned as the mechanical or medical model which has two branches: idealism and empiricism. Both of these skip over the phenomenal in their model of mind. They do not deal with the phenomenal at all. They ignore its existence.

As art teachers, paying attention to phenomenal consciousness in our art teaching means that we help the students look at the invisible, the ground, the silence. We help them look at the random in the properties of materials, and in human behavior. For instance, many children unconsciously make motions and sounds as they draw. What the child is drawing has come alive to him and he is living the experience of it as it comes out of the end of his pen. He makes the sounds of airplanes, cars, guns, and explosions. He jumps and squirms in the action that swirls around him in his art work. Pi-

casso said that when you step into the picture you leave (the world) behind you. You live in the world — the reality, space, and time of the picture.

For the last 10 years at the University of Florida I have been teaching a course called "Aesthetic Experience," in which I have asked students to recognize the phenomenal in their experience, to write phenomenological descriptions of what they see, and to explore phenomenal experience formally in class.

The students in this class work with learning to sound shape and shape sound both with their bodies and voices. They are encouraged to explore the relationship between vision and motion. They observe how the phenomenal shapes of their bodies change as they are depressed or happy, when they have a head cold or when they feel fat or tired or hungry. They are asked to observe their nonlinear thinking as it naturally manifests itself in life. Does their body seem to expand when they feel angry? Do other people seem larger when they are yelling at you? Do you feel small and shrinking when you are sick? We study synaesthesia — how the senses correspond as when we say there is a "sour blue sky." Or we bite a stinging sweet pickle just when there is a sharp, stinging sound of metal being struck in a work of music. The most impressive thing I have heard said about the class is that it is an "eye-opener."

Just before he died of cancer in the early 60's, Aldous Huxley wrote a novel called *Island*. In this book, he describes an advanced society which has learned to educate the phenomenal mentality as well as the conceptual mentality. In the school curriculum children study exactly what they study now. They learn to read, write, spell, and count. They learn history and geography, biology, physics, and chemistry. But they also study their own ability for feeling. They explore and expand on their abilities for motion, seeing, touching, sounding, and so on.

These nonlinear studies comprise one-half of the school curriculum. And that is not surprising. If there are two modes of knowing which are equally valid, then why not give them equal time in the education of a human being?

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SOME PHILOSOPHICAL REFLECTIONS ON COGNITIVE PSYCHOLOGY

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Cognitive psychology is becoming increasingly popular with school systems as a theoretical foundation for their curricula. Challenges made by the public and the courts, as to just what is the purpose of the schools, provide a strong incentive for school boards to find explanations of how learning takes place. Cognitive psychology seems to fill the bill nicely. It describes the nature and processes of cognition; whatever else the schools do, they are in the business of developing cognition.

In a nutshell, cognitive psychology describes the mental processes by which the child approaches and understands the world. Initially these approaches are largely experiential and are carried out in the most direct perceptual and psychomotor ways possible. Eventually the child develops to a stage when he is a largely rational being — analytic, abstract, logical — the true scientist. The intervening stages describe the significant steps the child makes in progressing from the experiential stage to the objective stage. Consequently there is a tendency for the schools to focus on the objective "concrete" and "formal operations" stages, which happen, in fact, to be most compatible with the schools' curricular goals. It is to the credit of many cognitive psychologists that they continually bring attention to the importance of the early experiential stages. The later objective stages are not likely to be fully realized if the early stages have not been fully experienced.

Cognitive psychology is a developmental psychology especially devoted to cognitive processes within the child. It makes the same assumption all developmental theories do: that the substantive changes in the child — in this case, changes in cognitive processes — occur normally and naturally, without the need of any outside impositions. Consequently, the drive that carries this development forward must come from within. Cognitive psychologists readily acknowledge the need for some kind of inner drive to fire the cognitive machine at every stage. It is to this particular aspect that I wish to direct my remarks. My remarks are predicated on philosophical constructs and are therefore not intended to be a criticism of this psychological theory. Rather, I hope my approach from a different angle will shed some light on a corner that may have been overlooked.

To understand the nature of the motivation underlying cognitive processes would reveal a great deal about the nature of the cognitive processes themselves. The child's cognitive processes clearly change from a projective stance radiating out from his egocentricity, to the acceptance of the basic primacy of the external world. Cognitive psychologists are aware of this shift of mind. I think however that they see it simply as a change from one kind of cognitive process to another. I believe there is a more fundamental change, particularly in the motive forces that underlie the cognitive processes.

If you will allow me a philosophical excursion — cognitive psychology is of course concerned with epistemological questions — questions dealing

with the nature of knowledge and the processes of knowing. Epistemology falls under the general rubric of ontology, the concern for what is real, for what already exists in fact. We assume in asking what is known and knowable that we are referring to real things — real objects, real events, real ideas. A characteristic of external reality is its prior existence. Consequently, cognitive psychologists assume that all cognitive processes are directed toward the disclosure of a reality that already exists. This involves uncovering the perceptible properties (phenomena) of real things to the mind in the form of concepts. The motive force behind disclosure is intention. This all makes sense as long as we have a preexisting reality to work with.

But let us suppose for a moment that reality is not out there waiting for us to uncover it. If it is not there, it cannot be disclosed to the mind. Likewise, there is then no point of an intentional mechanism to make disclosure possible.

This condition is not as extraordinary as it sounds. It is found in the creative act. Things that are created, by definition, do not exist prior to their creation. They do not even exist as ideas or visions. Thus, for a person who is primarily involved in intending and disclosing a reality he expects already exists, creating art is a frustrating if not pointless activity.

It is here cognitive psychology suffers a paradigm failure. Because of their epistemological and ontological orientations, cognitive psychologists assume that all cognitive processes are directed toward intention and disclosure in one form or another. They attempt to explain intention and disclosure as cognitive and motivational processes. However, up until the time the child accepts the primacy of the external world, I believe he operates on an entirely different basis.

The young child, that is the child at the experiential stage, is not at all concerned with what is real. His world is predicated on what is important to him. Philosophically speaking, his outlook is axiological. He deals with matters of value and importance, rather than with reality and knowledge.

The "cognitive processes" open to the young child are projective. He pushes into the world with imagination, spontaneity, fantasy and caprice. Most importantly, he creates. He brings into existence things which did not exist prior to his creation of them. The world is his raw material, mutable and manipulatable. He approaches it as any good artist approaches his materials: in terms of what it could be instead of what it is.

Specifically, the things the young child creates are meanings. They are meanings in the sense of import and value, not definitions or explanations. They are immediately and directly experienced through the sensory and psychomotor body. Experience and object are one. The young child does not perceive his meanings apart from the object or event itself. There is no phenomena and no mental construct. There is no intention.

The young child cannot draw upon a preexisting source for the substance of his creations. He must fall back upon a source within himself. This is where an axiological base proves essential. The motive force behind his creative act is literally what is important to him. The meanings he creates confirm and reinforce these feelings of import much the way objects in the external world disclose the intentions directed toward them to the older child.

Given this view, it is easy to see why the young child is so successful as an artist — it is his natural state of being. Gardner believes the emotional and affective vectors (or what I'm calling the axiological base) can be retained into the objective cognitive stages. I would agree.

We need to see what happens as the child creates in order to understand

how his axiology might be retained. The young child does not concern himself with whether or not he is creating art. The question never comes up because *what* he is creating is never at issue. The experience and the object are too synonymous to ask such an objective and reflective question. What is important to him is that he is creating, and this is done with absolute confidence and self-possession. The meaning he creates fulfills his axiological need to attend to that which conveys import.

The young child is as matter of fact in his art as he is in his other transactions with the world. He grasps completely the fact of art, the conviction that what he is doing has meaning for him. It is the fact of art that is often lost when the child passes into the objective cognitive stage. In accepting the primacy of the external world, he surrenders his axiological conviction. And it is the fact of art that must be retained in the objective cognitive stage if creating art is to remain a viable activity.

In conclusion, there is nothing contradictory or exclusive about these two perspectives. After all, not *all* children stop creating art when they reach the age of seven or eight. Those who continue to be creative share two characteristics: they have developed a personal axiological base within themselves, and they continue to give import to their experience. They are thus able to create meanings that have no prior existence, even though their cognitive processes have become largely dependent on a preexisting world. We, seeing only the outward appearance, call it art.

Children must inevitably turn the corner from an axiological world to an epistemological world. The cognitive processes must inevitably become directed toward disclosure of an external reality. The particular value of a strong axiological base is that it allows the child to take up a much more intuitive and essential position, a position based on personal, essential values. Such an intuitively held position gives intention an assertive authority — an emotional and affective vector, if you will — that cannot be derived from the external world.

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THE AESTHETIC RESPONSE TO NONREPRESENTATIONAL ART: A SUGGESTED MODEL

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Abstract

The Aesthetic Response to Nonrepresentational Art: A Suggested Model

This essay is an attempt to develop a rhetorical theory of the aesthetic experience of nonrepresentational art. Suggested steps in the process of this aesthetic experience include: (1) creation of a special reality by the art object, (2) vitalization of the special reality by the audience, and (3) creation of identification between artist and viewer that enables the vitalization to occur. The essay concludes with implications of the model for art educators, artists, and baffled viewers.

The typical visitor to a museum or gallery displaying nonrepresentational art[1] often has difficulty understanding and appreciating the works in the exhibition. Responses to a painting that consists of streaks of color on a canvas are likely to be, "Even I can do that — why is that considered good art?" or "What's the message? What is it supposed to be?" The visitor may be inclined to agree with the response of English diplomat Wilfred S. Blunt after he viewed an exhibition of Post-Impressionist paintings in 1910: "The exhibition is either an extremely bad joke or a swindle."[2]

The root of the problem seems to lie in the fact that artists live in a world of images they experience empathetically and organize intuitively, while the general public lives in a world of symbols where verbal meaning or practical application is attached to almost everything. Art has been assigned in the minds of most people the function of presenting a representation of the natural world as we perceive it with our eyes. Nonrepresentational art that does not perform this function is incomprehensible to much of the general public. As a result, the typical viewer of nonrepresentational art is likely to become frustrated and retreat from these works of art.

A better understanding of how nonrepresentational art functions may be gained by applying notions of rhetoric to theories of art. By rhetoric we mean communication, or the study of how symbols evoke a response. Although scholars in the field of rhetoric tend to confine themselves to the study of verbal symbols, rhetoric as a discipline is also applicable to nonverbal symbol systems such as art. As Burke points out, symbolization includes not only talk, but "all other human symbol systems, such as mathematics, music, sculpture, painting, dance, architectural styles, and so on."[3] Duncan argues that to study communication in society, we "must study art, for the highest (because most complete) incorporation of natural forces and operations in experience is found in art."[4] Others, too, have recognized that art is a language and that it should be described in linguistic terms. Kaelin, an aesthetics theorist, points out that if "the arts can truly be said to compose a language, then one ought to be able to describe that language, both

generically and specifically."[5] Add to the notion that art can be studied as a language the contemporary trend in which the scope of rhetoric has been expanded to encompass all of the ways in which symbols of any sort influence,[6] and the inevitable conclusion seems to be that we ought to attempt to study the visual arts as we do the verbal ones.

This essay is an initial attempt to develop a rhetorical model of the aesthetic experience of nonrepresentational art. At the base of the theory is a rhetorical definition of art — we view art as the conscious production or arrangement of sounds, colors, forms, movements, and other elements in a manner that affects or evokes a response. Although aspects of this theory will be applicable to representational art, our focus will be on nonrepresentational art because it poses the most difficulties for understanding the aesthetic experience involved.

Justification

The need for a rhetorical theory of nonrepresentational art can be seen in the limitations of past theories about art. These theories do not deal adequately with nonrepresentational art as seen in a cursory review of them.[7]

The imitation theory of art, which can be traced as far back as Plato, defines art as the literal representation of objects or events in real life. The goal of art, according to this theory, is to reproduce the object as nearly as possible in the manner in which it appears in nature. This theory, of course, omits a great deal of art by stipulating that art must portray literally an object; the focus of our attention — nonrepresentational art — is an obvious omission.

The emotionalist theory, which developed mainly out of the Romantic movement in Europe at the end of the eighteenth century, represented a reaction against Neoclassicism, which discouraged emotionality, originality,

and flexibility in art and relied heavily on Greek and Roman forms and styles. This theory defines art as an expression of the artist's emotion or the presentation of feeling controlled through some medium. It presents problems, too, for our purposes, because it attributes one motive to all artists: the expression of emotion and the communication of that emotion to others. But artists may have other motives, such as the creation of an attractive object or an attempt to solve a technical problem in a particular medium.

A contemporary theory of art — the formalist theory — defines art as significant form — the elements of line, color, shape, mass, light, shade, and tone organized into a formal pattern. Formalists believe that associations with persons, objects, or events outside of the work of art are irrelevant because they prevent viewers from becoming fully involved in the aesthetic experience of the work itself. The formalist theory falls short of explaining the aesthetic experience of nonrepresentational art in that it does not state how to tell whether or not a particular structure or form is significant and how this structure affects the viewer.

Finally, the theory of the aesthetic field proposed by Berleant expands a definition of art into an explanation of the aesthetic experience. His theory includes the components of art object, perceiver, artist; performer, and the biological, psychological, material and technological, historical, social and cultural factors that combine to create an aesthetic transaction. Although this theory solves many of the problems encountered in earlier theories of art, it fails to explain how a work of art affects a viewer; it describes factors that may affect the response, but not how this response occurs.

A rhetorical model of nonrepresentational art, then, clearly answers a need. It can provide an understanding of the aesthetic process that is involved in an individual's response to a

nonrepresentational work of art that current major theories of art do not. In addition, we believe that the study of the visual arts as rhetoric will contribute to an understanding of society as a whole. We see three ways in which this contribution can occur:

(1) Ours is a visual age — the image seems to be taking over from the written word, perhaps because more information can be transmitted in less amount of time through visual rather than verbal imagery. We are confronted more than ever before with visuals in our everyday lives — photographs in the newspaper, posters, pictures on cereal boxes, glossy pamphlets in the mail, billboards along the highway, store window displays, maps, images on television, and postcards, to name a few. In short, we are urged to live by visual sensations. Because this is the case, we need to clarify how the visual image functions in our society, and the proposed model, which employs principles of the more traditional written and oral modes of communication, may assist in this understanding.

(2) We tend not to recognize the more mythical symbol systems such as religion and art as social facts or as hard data by which to study society. Science, in particular, seems to neglect these areas as legitimate vehicles for discovering information about society. Perhaps the study of the visual arts through the terminable equipment of an ancient, established medium such as rhetoric will help to legitimize art as acceptable data by which to study society.

(3) Many verbal symbols today have been stripped of their emotional energy, and few people respond to these old symbols. Americans today, for example, generally are not stirred by words that would have stirred our forebearers such as "liberty" and "justice." Nonrepresentational art, on the other hand, forces us to recognize new

images because its symbols are visual, vivid, and striking; these works of art usually contain so much energy that we are forced to pay attention to them. A study of how nonrepresentational art functions, then, can help to meet the need for new symbols to take over when our verbal language falters.

A rhetorical theory of how nonrepresentational art functions to create an aesthetic experience, then, will hopefully escape limitations of past theories of art and will help clarify the nature and function of symbolism in contemporary society.

Limitations of the Theory

Before we begin to examine the rhetorical process by which an aesthetic experience occurs, we will first limit our theory by confining our concerns to the perceptual rather than the physical aspect of a work of art. Art theorists and critics long have recognized the distinction between the actual physical art object and the perceptual or aesthetic object that triggers the aesthetic experience. Beardsley, for example, suggests that a perceptual object is the object open to direct sensory awareness, while the physical object or the physical basis of the perceptual object consists of things and events describable in the vocabulary of physics.[8] In other words, the physical object is what it is, and the aesthetic object deals with the effects that object has on us. As Beardsley explains, "When a critic, then, says that Titian's later paintings have a strong atmospheric quality and vividness of color, he is talking about aesthetic objects. But when he says that Titian used a dark reddish underpainting over the whole canvas, . . . he is talking about physical objects."[9] Beardsley's use of the term "presentation" further clarifies this distinction. The physical object is not the object experienced by a viewer; what is experienced is the presentation of the physical object.[10]

Lipman also recognizes this two-fold nature of an art object. He emphasizes that the "esthetic entity is not, either spatially or in any other appropriate sense, to be located within the physical object or event which serves to present it."[11] He labels the two aspects of a work of art "formal structure" and "functional structure." Formal structure (or what Beardsley calls the physical object) deals with the way things are put together, and functional structure (or Beardsley's aesthetic or perceptual object) deals with the way things behave.[12]

This proposed theory will deal only with the perceptual, aesthetic, or functional object. That is, we will attempt to discover how nonrepresentational art functions and the effects it has on a viewer, rather than analyzing the colors, forms, techniques, or themes of works themselves. To make the distinction between the perceptual and the physical object is not to deny the importance of the physical elements involved in the process of painting. The only way to obtain a perceptual or aesthetic object is to apply pigments to canvas or paper. But these elements have been subject to a great deal of examination and research by artists and art historians, and thus they will not be our concern here. We now will turn to an examination of the process involved as a viewer encounters the perceptual object.

Step 1: The Art Object Invites Entrance to a Special Reality

Verbal symbols may function in a number of ways, including excitation, persuasion, or identification. But they have another possible function as well: the creation of a special reality for those who choose to participate. Bormann recognizes this function in his notion of a "rhetorical vision," a symbolic drama which catches up groups of people in a particular reality.[13] Campbell, too, sees rhetoric as a motivating force for the development of a reality: "From the point of view of theories of symbolic behavior, persuasion is a process in which the individual creates his meaning through detecting, identifying, and interpreting the stimuli he receives and which is integrated into and hence influences his perceptual framework."[14]

But verbal or written discourse is not the only medium that creates a world or a vision for participants. Most of our society's activities are evidence of this kind of perception. We view many events, disciplines, and ideas as dramas of some type which contain all of the necessary elements for the creation of a special world. For example, we speak of a "theater of war," "making a scene," or "working behind the scenes." A similar perception was conveyed by the black youth who was asked his attitude about serving in the Vietnam war. He replied, "Man, they ain't going to put me in that movie, even if they make me the star!"[15]

In politics, we see the existence of a dramatic world that functions apart from the actual administrative function of government. One writer has argued that Lyndon Johnson chose not to run for a second term solely because his performance was too widely jeered, although he was adequately performing his duties.[16] In music, too, we see rhetorical visions or worlds being created. Jim Morrison of The Doors explained the process of a concert in terms that are surprisingly rhetorical: "When I sing my songs in public, that's a dramatic act, but not just acting as in theatre, but a social act, real action. A Doors concert is a public meeting called by us for a special kind of dramatic discussion and entertainment. We make concerts sexual politics. The sex starts with me, then moves out to include the charmed circle of musicians on stage. The music we make goes out to the audience and interacts with them; they go home and interact

with the rest of reality, then I get it all back by interacting with that reality. When we perform, we're participating in the creation of a world, and we celebrate that creation with the audience."[17]

Art, too, creates a particular reality or world. This world is not a mirror or duplicate of a world that exists outside of the painting, but is instead a new and original world. Numerous critics and artists have recognized this function of an art object. Hodin, for example, explains it as "an imaginary, a subconscious, a visionary, a constructed, a personal world. . . ."[18] Lipman suggests that "to be a work means to set up a world,"[19] while Feibleman argues that a "work of art leads a life of its own, just as the artist does; it has its own value and validity and engages upon its own adventures."[20] We discover, then, that the function of art is, as Graham explains, to "discover new lands" or new worlds.[21] A natural corollary to this notion is that there is not only one possible world or vision available to us. Instead of seeing only one world, our own, we see it — through art — under multiple forms, and there are as many worlds at our disposal as there are original artists.[22] These worlds, of course, differ widely from each other, and there is no assurance that any one image of the world is truer than other images.

How does a work of nonrepresentational art create a world? The process begins, of course, with the artist. We may tend to assume that the reality created by the painting is the conscious representation of some idea which the artist holds and which is then realized on canvas. Examinations into the creative processes of artists have revealed, however, that the opposite is true. Art does not give name to preexisting objects or concepts as much as ideas are suggested or imposed by works of art. Picasso explained the process in this way: "One

simply paints — one doesn't paste one's ideas on a painting. . . . Certainly, if the painter has ideas, they come out of how he paints things."[23] Perhaps the artist John Graham explained this notion best when he defined painting as "the Space articulating"[24] — in other words, the painting itself communicating rather than simply reflecting a thought its creator wished to communicate. Thus, we see the same process operating with visual symbols that Bormann and others suggested was a function of verbal language — the creation of a particular world or reality for those who participate in the symbolic reality. Art orders experience in a particular way through lines, colors, textures, and materials to create a new name for experience and, thus, a new reality.

Step 2: The Audience Vitalizes the Special Reality

Just as the ultimate purpose of verbal communication is audience response, so nonrepresentational art relies on an audience. The audience enables a particular reality to be created by the work of art.

Although we have seemed to suggest thus far that the work of art creates a special world with no external aid except from the artist, this is not the case. The spectator must receive whatever impress the work of art makes upon him or her in the first step, but the process does not end here. The perceiver next must actively work on the art object, vitalizing it by setting off its aesthetic potential to help it create its reality. Dewey explains this process: "The *product* of art — temple, painting, statue, poem — is not the *work* of art. The work takes place when a human being cooperates with the product so that the outcome is an experience that is enjoyed because of its liberating and ordered properties."[25] Huyghe's description of the

process is more poetic; he notes that a painting tosses a "sumptuous gift at our feet; it is up to us to bend down and take it, and to breathe our life into it. Painting does not explain: it *is,* and shows what it is; it is up to us to experience it. . . ."[26] What we find, then, is that a nonrepresentational painting creates its own special world or reality, but this creation is possible only through the assistance of the audience or the perceiver. That is, the painting lives only through the individual who is looking at it.

The meaning of an art object, thus, is not inherent in the work itself. Rather, it grows out of social interaction that takes place between the artist and the viewer by means of the created work. The result is communication between the artist and the viewer or an aesthetic experience. For as the artist and the viewer cooperate, a community of action is established in which both the artist and the viewer respond in similar ways to the visual symbols. These symbols then take on a common meaning in the community in which the artist and viewer cooperate and reside.

The essential role of the audience in the aesthetic experience not only allows for the development of meaning in a painting and concomitant communication between artist and audience, but it also endows an art object with the potential to be experienced in various ways by various individuals and to be enjoyed repeatedly by the same person. Because each individual perceiver will view the art object from a different background of experience and a different perspective, the art object will create a reality that is different for each perceiver. Thus, a work of art cannot have the same meanings for all people. Rather, each viewer cooperates in his or her own way with the artist to create a particular community of meaning. And because of this capacity of the art object to inter-act with the individual framework of the viewer, he or she can enjoy repeatedly one art object and become involved in an aesthetic experience as a result of that one object. For each time that a person views a painting, his or her perspectives and values will differ to some extent. With each fresh new framework that is brought by the individual to the art object, a different reality or world and, thus, a new aesthetic experience will result.

At this point some are certain to assert that the artist does not need an outside or external audience, that communication need not come into this process at all. The argument might be presented that an artist may not want to show a painting to anyone, but rather allow it to serve simply as a focus for his or her personal images. But this view ignores the fact that the artist is his or her own audience. And because a painting has a life of its own apart from the artist, the artist is subject to the same processes of communication and interaction with the work as is the typical spectator. As Kaelin explains, "the artist learns as much from his work as does his audience. The artist is his first appreciator, . . . the first one surprised to discover 'his' idea."[27] Thus we see that the audience is crucial in the creation of a particular reality by a work of art, whether this audience is an outside viewer or the artist.

Step 3: Identification Is Created Between Artist and Viewer

What is left is to explain why some viewers succeed in vitalizing the vision offered by a work of art and thus enter an aesthetic experience and why others do not. Some individuals are able to enjoy, appreciate, and enter into the vision, but to others, as Jung explains, there "is no welcome, no visible accord in the cosmos created by the artist."[28] Or as Klee explained, the "modern work of art . . . is a sym-

bol. The symbol, by its nature, is only intelligible to the initiated. . . ."[29] But what accounts for the initiation of some and not others?

The process of viewing and experiencing a work of nonrepresentational art is naturally a divisive one. The art object presents a world that is puzzling, foreign, and bewildering to the viewer — a world that is novel and different from that which he or she has accepted previously and assumed to be true. This new world offered by the art object is, in a sense, a type of protest against these established visions of the world. Thus, the viewer is forced to confront two conflicting or different visions of the world, and the conflict must be resolved. The presentation of the new vision provides the starting point for communication between human beings because it demands that a particular vision be subjected to reconsideration, revision, and adaptation, communication occurs.

The process by which the division between the artist and the viewer (or the artist and the art object) is resolved is identification. As Fry explains, "If we take an analogy from the wireless — the artist is the transmitter, the work of art the medium and the spectator the receiver. Now for the message to come through, the receiver must be more or less in tune with the transmitter."[30] Division remains unresolved only when the audience is unable to find a point of identification that is sufficiently persuasive to entice it into the reality of the work. And individuals are persuaded to enter the vision only insofar as the artist talks their language by speech, gesture, tonality, order, image, attitude, and idea.[31]

Thus, we have in nonrepresentational art a process that is familiar to communication theorists. The artist makes choices on the basis of what will be most persuasive to the audience or what will induce the audience

to an acceptance of a particular vision of the world. The world view of the artist can be expressed in various ways, but some of the choices made by the artist will be more effective than others in persuading viewers to recognize a new vision or reality.

The artist must choose from among canvases which are small or large and which can be made of linen or cotton. Paints may be organic or synthetic, and they may be applied with brushes of varying thicknesses, a palette knife, a finger, or a tube. The artist also is confronted with choices as to method — whether tonal painting, contrasted color painting, or painting a preliminary charcoal sketch. The particular elements chosen by the artist to express reality will determine how the viewer will perceive that reality and be persuaded by it. If a work of art does not provide means of identification for the viewer with the artist and a special reality, then the artist's choices have been inappropriate for the audience, have assumed values or capabilities in the viewer that were not there, or have been directed at another audience.

Thus, some degree of identification with the artist is a part of any aesthetic response to a work of nonrepresentational art. At the most basic level, the artist and the viewer must hold some similar notions about the function of art, what is quality in art, and what is pleasing in art. Both must acknowledge the validity of nonrepresentational art and share some awareness of the artistic choices available to the artist from which the work was formed.

But there are some viewers whose identification with the artist's world is much greater, who enter fully into the vision of a world. These viewers we call connoisseurs; they are perhaps the ideal audience for the artist and result from a variety of factors such as acquaintance with the general style of the work, cultural background,

and knowledge of art. In other words, the viewer, too, makes choices that will influence the degree to which he or she can participate in the vision of a work of art. The process of identification, then, allows us to discover the aesthetic experience less in terms of minds mysteriously attuned to one another than in terms of people ready to appreciate each other's choice of alternatives.[32]

Implications of the Model

The process that is involved in the aesthetic response to nonrepresentational art, we have seen, can be described in rhetorical terms. The viewer confronts a work which offers a particular view of reality, and the viewer vitalizes that reality by identifying with the artist's choices. This process and its accompanying definition of art as conscious production to evoke a response have implications for art educators, artists, and baffled viewers.

Museum directors and art historians traditionally have emphasized the learning of names and dates of works and artists as the proper method for studying art. Although some degree of familiarity with particular works, styles, and schools assists in the understanding of nonrepresentational art, it does not guarantee that the viewer will be equipped with the tools necessary to respond aesthetically to an unfamiliar work of art. What is needed, according to our model, are methods of education about art that stress ways of seeing and a basic knowledge of the variety of choices available to artists. These can be implemented through educational supplements to exhibitions that explain how works — such as intaglio prints — are produced, the artist's view of his or her work, or perhaps — more generally — explanations of various theories about art. Art educators also need to encourage visitors to their galleries to talk about their own responses to works of art,

helping them to understand the choices they are making in their responses, rather than simply smiling at their ignorance as it surfaces in expressions of bewilderment.

This theory, too, provides a basic framework in which the artist can function. The framework that results from this model can be summarized best in one question that an artist might want to consider as he or she works: How can I expedite the vision that is emerging in terms of the materials, techniques, and compostion I use so that the audience identifies with the vision? With this focus, the artist is forced to think of art in terms of an audience (even if it is only him or herself), to make deliberate choices as to how to expedite a vision, and to allow the work to emerge according to its own rules rather than according to any external dictates of a school, style, or trend. This means, too, that standards by which art is judged remain flexible and evolve as art changes, and these standards will differ from work to work. Rather than attempting to judge *all* art according to imitation or formalist standards, it must be judged according to the rules that are operating in the particular reality created by the work. This is not to say that there are not certain standards of competence, technical skill, or originality that are expected from all works of art and all serious artists. But the skills necessary to expedite a particular vision will vary from work to work, and what a critic demands in one work may not be necessary in another if the vision asks the viewer to enter a very different reality.

We can offer the untrained viewer some understanding about nonrepresentational art as a result of this model. Our interaction with symbols — including the visual symbols of nonrepresentational art — helps us understand ourselves and our society. Thus, if individuals are puzzled by works of

art and cannot even recognize them as art perhaps, they should look at their own choices regarding art and how these choices affect their attitudes toward art. For example, they might ask why they have decided that one type of art is good and another bad, they might think about why they choose not to study art, and they might want to investigate their reasons for visiting galleries to view art. Choices such as these affect how they respond aesthetically to art, and if viewers seek a fuller aesthetic experience with nonrepresentational art, they may want to examine choices made about art that might be obstacles to this experience.

We do not pretend that this application of rhetoric to art represents a definitive and complete theory of how an aesthetic response results from nonrepresentational art. Rather, we see it as a beginning step that hopefully will encourage theorists and scholars — whether they study and work in visual or verbal modes — to share visions as they work toward a full understanding of this process.

Footnotes

1. By nonrepresentationl art we mean works of art which do not depict something in the "real" world — i.e., abstract, nonobjective, or nonfigurative art.

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5. Eugene F. Kaelin, *Art and existence: A phenomenological aesthetics*. Lewisburg: Bucknell University Press, 1970, p. 35.

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22. Rene Huyghe, *Ideas and images in world art: Dialogue with the visible*. New York: Harry N. Abrams, 1959, p. 257.

23. Dore Ashton, *Picasso on art: A selection of views*. New York: Viking Press, 1972, p. 17.

24. Graham, p. 103.

25. John Dewey, *Art as experience*. New York: Capricorn, 1958, p. 214.

26. Huyghe, p. 244.

27. Kaelin, p. 38.

28. Carl G. Jung, *Man and his symbols*. New York: Dell, 1968, p. 287.

29. Gassner and Thomas, p. 506.

30. Roger Fry, *Last lectures*. Boston: Beacon Press, 1939, p. 15.

31. This is Burke's notion of identification. See Kenneth Burke, *A rhetoric of motives.* Berkeley, California: University of California Press, 1950, pp. 45-46.

32. E. H. Gombrich, *Meditations on a hobby horse and other essays on the theory of art.* London: Phaidon, 1963, p. 63.

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IMAGINATION

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Throughout the history of its philosophical consideration, imagination has been afforded a fluctuating and ambivalent status in regard to its significance and role as mental faculty. Edward Casey describes this ambivalence as "denial-cum-acceptance." Casey defines denial-cum-acceptance as a paradoxical pattern ". . . in which an express denigration is accompanied by a covert recognition of the special utility of imagination in the process of philosophizing."[1] He further suggests that this is an outcome of an unwillingness to acknowledge imagination as autonomous. According to Casey, the autonomy of imagination consists in ". . . its independence from other mental acts, from its surroundings, and from all pressing human causes," and in ". . . the freedom of mind of which imagination is uniquely capable."[2]

To claim autonomy for imagination does not deny that imagination cannot or does not ally with other mental acts. Nor is it to deny that imagination has application to and use in our lives. To claim autonomy for imagination is to acknowledge that capacity of the imagination to self-generate and to self-sustain. In this capacity, imagination has no necessary relationship to the extraneous. I suggest that it is in its autonomous state that imagination presents possibility.

It is not the purpose of this paper to elaborate on the autonomous nature of imagination. I want to discuss an aspect of imagination which appears to be a use-dependent aspect, although I hope to demonstrate that it is not, that in this aspect, imagination acts autonomously. By use-de-

pendent I mean that imagination is seen to act in a non-autonomous way, e.g., as dependent on another mental faculty or act. The particular aspect to be discussed is the capacity of imagination to engage in reflection. This will be explored in terms of its implications for the creating and appreciating of art.

That imagination in some way reflects is a claim to be explained in this paper. I shall attempt to explain it through discussion of two instances in which imagination appears to reflect. One instance might be described as imagination reflecting on the actual. The other instance is described as imagination reflecting on imagination. Both instances will be exemplified in a later part of the paper. At present it seems necessary to discuss the term reflection.

The term reflection, used in its familiar sense in reference to a mental act, is taken to mean the turning back of consciousness onto a topic in a concentrated manner. The "turning back" effort involved in reflection implies that there exists or existed something to turn back on. That is, the something which is turned back upon has been there at least once, or is there now. It may be present in an immediate sense or it may be present in memory. I shall call this something the "actual" in that it is, or has been. Reflection may be directed toward that actual which has been, it may involve recollecting or remembering, although remembering or recollecting are not necessary components of reflection. One distinction of reflection from remembering may be understood in light of a dimension of reflection. This di-

mension is the "mood" of reflection. That is, reflection is undertaken in a particular mood which is anticipatory and is indigenous to reflection. This does not deny that anticipation is involved in remembering. The difference is that the anticipation in remembering is anticipation of the known, whereas the anticipation in reflection is anticipation of the possible.

In remembering, anticipation is directed toward locating the actual which is in memory and which is already known. Sartre describes such events and items as being in retirement. When we recall an item in retirement, Sartre says that it is ". . . posited as 'GIVEN-NOW-AS-IN-THE-PAST.' "[3] Further, to remember the item is to take oneself to it. Anticipation involved in this situation might be described as anticipation of arrival at a destination, one which is known.

When imagination reflects on the actual it transforms it into the possible. That is, the actual, that which we accept as being or having been, becomes non-actual in the sense that we are now able to recreate it. It becomes possible in the sense that we do not yet know in what ways or forms it will be recreated. To claim this is not to say that the actual no longer exists as being or having been. It is to say that we need not view it as such. Two points need to be considered here. One is that the actual, when transformed by imagination into the possible, may take on a different reality. The other is that there appears to be some intention involved in reflection which is different from the intention involved in remembering.

An example which will serve to demonstrate both points mentioned above is that of my mother's imagined age. My mother consistently insists that her age is four years less than it is. She claims to have 51 years when, in fact, she has 55. I do not know the reasons why my mother chooses to present her age in this way, but I am aware of the results of her doing so. In our society we generally name an action such as this a lie. However, I will describe it here as an instance of imagination reflecting upon the actual. In this case my mother, in reflecting upon her age, imagines that it is other than what it is. In simplest terms I might say that my mother imagines she is younger. However, this situation becomes more complex in my mother's presentation of possible age as actual age. The purpose of my mother's imaginative efforts is to recreate the actual in order to change it. This is her intent. Because she is able to imagine her age to be as it might be she is also able to imagine it to exist as it "might be" in some reality. That is, her possible age exists as actual age for whoever is willing to accept it as actual. My mother's lie can be seen as an effort to sustain the possible.

It is not my purpose here to discuss the ethical aspects of this example or the degree to which my mother's imagined age has become, for her, an actual age, although such discussion is tempting. The purpose of this example is to illustrate the two points made previously: that the actual when transformed into the possible may take on a different reality, and that there is a particular type of intention involved in reflection which arises from the anticipatory mood of reflection.

Unlike the represented age of my mother, that which is represented in the work of art, a painting for example, need not have an exact correspondent in the world. If my mother claims to be 51 years old we trust that there exists evidence, somewhere in the world, to support this claim. When we discover that there is no such supportive evidence and that, in fact, evidence to the contrary exists, then we feel some distress or disappointment at having been denied the actual. On the other hand, what is represented in a painting requires no such corre-

spondence to the actual. That which is represented in the painting *is* the possible. If this is true, then what is created and appreciated in works of art is the possible. It has been asserted that the function of imagination is to posit possibility. Imagining, then, must be central to the making and appreciating of works of art. It is in light of this statement that I shall discuss the instance in which imagination reflects on imagination.

I think that the context in which imagination reflects on imagination is most manifest in that of aesthetic experience. To the extent a work of art has not been predetermined, the artist's imagination is active in creation of the possible. The resultant forms of these imaginings are presented in the work as sensuous qualities. Within the temporal and spatial limits of the artist's working, it appears that all possibilities may exist. This sense of "emerging" possibility is experienced in viewing works of art also. As with the artist, the anticipatory mood of the possible is brought into reflection on the work by the viewer. This includes such possibilities as perceiving, not as yet perceived qualities, or experiencing, not as yet felt nuances.

Both the situation of creation and of appreciation may be experienced as intense. They require that the individuals involved "keep an eye on the target." That is, reflection entails a fierce attention to what is being made or looked at. This fierce attention to the work, or keeping one's eye on the target is not for the purpose of making the work appear static. It is to bring into play the particular intent involved in reflection: to allow for imagination to project possibilities. In making and appreciating, the artist and viewer experience the feeling that anything may be possible in the work of art. In respect to this, the work of art conveys a capacity to emerge or unfold, both in the process of its creation and in its consideration by the viewer. The work of art embodies imagination in its most autonomous presentation as pure possibility. When one's imagination reflects on this embodied imagination one may experience the event aesthetically. If it is the possible which is represented in the work of art, then this aesthetic experience must be, in great part, possibility. Such possibility is seen as an end in itself, both of the artistic product and the aesthetic experience with the product. Toward this end imagination has no regard for the actual.

In conclusion I want to suggest that reflection might be seen as an act of imagination, one which may be more controlled than spontaneous in respect to the intent of the individual. This intent, as we have seen, is to bring to existence the possible. If it is feasible to regard reflection as I have suggested then perhaps it is also feasible to think of imagination reflecting on imagination as imagination imagining itself. Although this is awkward in its use of terms, I suggest that it is central to the aesthetic experience. Perhaps more importantly, it is central to understanding the imagination as autonomous.

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IMAGINATION

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Imagination has but one function: to posit possibility. When imagination is exercised through belief, knowledge, will, and hard work reality is created from possibility. I do not mean to say that everything imagined is realized, rather, that reality is the result of some imagination. That claim needs to be explained, however. To do that I shall differentiate three major kinds of reality in a metaphysical sense. What I want to point out in distinguishing these three kinds of reality is the role played in each particular one by imagination. Further, I shall briefly discuss some implications of this metaphysical discussion of imagination for art, artists and art education.

"Scientific" is a term commonly used to name some descriptions of our world, so it seems reasonable to name the first of these kinds of reality "scientific reality." It may be a somewhat misleading term, however. A more descriptive term might be "common sense reality" because scientific knowing derives from a common sense way of grasping the world. We know the world by perceiving it by way of the senses. One problem with knowing the world through sense organs is that we are so often fooled by appearances. Let me illustrate the point.

The sun appears to rise in the east, move across the sky, and set in the west. We do, in fact, speak of the rising and setting of the sun. Long ago Ptolemy constructed a calendar on that premise stating that the sun revolved around the earth. But that assumption did not explain certain other astronomical observations. Later, Copernicus explained the rising and setting of the sun by the assumption that the earth revolved around the sun. His explanation was a better account than Ptolemy's explanation of these astronomical observations. In his explanation, Copernicus had to assume that what appeared to be so, was not in fact the case. He had to imagine what might be. Another way of putting this matter is to entertain the possibility that what ought to be the case in fact, is. That kind of imagination often gives rise to what has been called "theory construction."

Common sense allows that what we see of the world, and believe we see, is true. In science, on the other hand, it is assumed that perception is subject to many illusions which the scientist must overcome by being objective about perception. The scientist must find ways of seeing that are more foolproof than common sense allows. In science the assumption is also held that certain prior events (in simplistic terms) are causally connected to certain subsequent events, and that this state of affairs allows predictions to be made as another way of being objective. Therefore, when imaginative constructs (theory) permit a prediction, and when further observations accord with that prediction then, roughly speaking, "truth" has been obtained. (Relations between fact and language will not be discussed here. Truth is taken in the ordinary sense of the term.) Through scientific reality, then, the world is perceived in an objective way to be as it can be imagined to be, as it ought to be.

The second order of reality will be called "romantic reality." As opposed to the perceived world of substance

this one is felt by the self. The effect of a self is like being encapsulated within a container, looking out through sense organs at the world much as a submariner uses sonar and a periscope. Rage and love, depression and happiness, desire and repulsion are experienced as dualities of an inner life of the self just as trees, chairs and people are experienced as an outer one. Within the body this life of its own carries on, sometimes sucking the self into it like quicksand, and at other times overflowing the self like lava from a volcano. Sometimes the inner world is experienced exclusive of the other, outer world. To this extreme we attach the term "madness." Then, like Alice having eaten the mushrooms, the self becomes small enough to wander, lost in a vast expanse of that inner space. Usually, though, this state is experienced in less extreme fashion and one simply loses himself momentarily in a world of dreams and fancy — a necessary release given by imagination from life's difficulties.[1] At other times, either rage or love may fill the bodily container to overflowing and even the outer world is too small for the effects released. Rage wreaks violence, and love bestows its favors on friend and stranger alike.

These polar inner states have objects toward which they are directed; sometimes within the body and other times at the world outside. Even my own rage can be the object of either my anger or embarrassment. Unlike perception which can be in error, however, the feelings experienced in the felt world are always veridical. Rage is always felt as rage and never mistakenly held to be love. Although, because they are dualities, extremes on a continuum, an object of affection may suddenly become one of hate; so fickle are these inner states. Though veridical, inner states may be misdirected. A fetish rather than a lover may become the object of some desire, or anger may be inappropriately

directed. One more important characteristic of inner states is their need for some compensatory response from their object. A lover seeks returned love; an angry man wants the other to fight, at least.

Just as the scientific community proposes methods of objectivity in order to reduce the perceptual error of common sense, so some control over the tidal ebb and flow of the inner, felt world is sought. Three major possibilities have been institutionalized over the years: knowledge, the result of scientific objectivity, is proposed by education as control; the will or self-restraint is the moral proposal for control made by religion; and sublimation, redirecting the body's titanic inner force to socially acceptable ends, is the proposal made by therapeutic institutions. In each of these three institutions, imagination plays a leading role. But in all imagination posits to be what is not, or it posits not to be what is. Therefore, in romantic reality imagination plays quite another role than in scientific reality where imagination posits to be what in fact is. This may be elucidated a bit more with two examples.

If I love someone and that love is not returned, given the specific felt urge of an inner state, my reaction is that even if no love is returned it certainly ought to be. That is, what is not (her love returned) is posited as a possibility in the act of my "oughting." Or, in the case of being told by a doctor that I have only six months left to live, my inner state evokes the imaginative response that although this is the case, it certainly ought not to be. It is imaginative "oughting" which releases the inner forces to motivate overt behavior. I seek her love because it ought to be obtainable; I actively seek a remedy for imminent death for it ought to be there to find. In romantic reality the source of valuing is discovered. What I imagine to be that is

not, is precisely what I may choose to value and, in valuing, to strive actively toward achieving. Romantic reality creates aims and goals by virtue of imagination.

These two states of reality may properly be distinguished, because not all that is hoped for can in fact be and not all that in fact is, is the hoped for. Because these states are distinct, relations between them may be made; desiring what cannot be had and wishing away what must be. How is one to cope with that which is hoped for but cannot be, and what is it that s/he would have otherwise? Imagination brings one to these straits. Can it also resolve the dilemma?

The third order of reality shall be named "sentient reality." A more religious person might satisfy himself with not naming it, but simply symbolize it in the tetragrammaton. Or, being bolder, s he might say that one can be with God in unity. However, this third state will merely be characterized here with the description that it is "riding on the wind." Other metaphors used by Western men to speak of the same phenomenon are the Christian resurrection story, and Plato's allegory of the sun.

Those familiar with Zen Buddhism will recognize "riding on the wind" as a reference to the state of enlightenment of which the authority on Zen, D. T. Suzuki, says, "The essence of Zen Buddhism consists in acquiring a new viewpoint on life and things generally. . . . This acquirement, however, is really and naturally the greatest mental cataclysm one can go through with in life."[2] Lest there be skepticism about what has been characterized as mysticism by some, let me hasten to draw upon other sources for the facticity of this order of reality. Humanistic psychologists, A. H. Maslow for example, call it "self-actualization." It has also been characterized as the "aha" or "eureka" experi-

ence so often noted in mathematics and associated with the solution of problems. Sartre calls it "possession." It is to own one's self, to acquire a new viewpoint the consequence of which, in Sartre's terms allows that "I *am* these objects which I possess, but outside, so-to-speak, facing myself; I create them as independent of me; what I possess is mine outside of me, outside of all subjectivity as an in-itself which escapes me at each instant and whose creation at each instant I perpetuate."[3] Even these psychological, existential resources may be too suspect for some people, however. So let me draw upon the most traditional and conservative resource in the Western world, claiming that in it also one may find a desire for the same end sought by these other resources. Albert W. Levi, the noted humanist, represents tradition's version of this third reality. He says, "A humane imagination, the forging of a universal social bond based on sympathy, and the inculcation of a technique for the realization of values then becomes the ultimate goals of the liberal arts."[4]

A full discussion of the Age of Enlightenment as the Western world's version of Eastern "enlightenment" must be deferred to another time. However, it may still be pointed out, and what is important to note of Levi's terminology which may suffice to make the point, is his use of the phrase "realization of values." I take this literally to mean that values are made real; the resolution of scientific and romantic realities taken conjointly with the creation of "humane imagination." The humanistic aim, the existential, psychological, Buddhist and religious aims, to one degree or another, all accept that these first two distinct states of reality can be resolved and collapsed into the third kind of being.

In characterizing this state which I have termed "sentient reality" the

psychoanalyst, Hubert Benoit likens the two other orders of reality to a crossroad intersecting at the center of one's being.[5] At this metaphorical crossroad meet the flowing flux of perceived and felt life which are seen, believed, and understood by men usually to be separate and never to meet — except, perhaps in some logical, theoretical way. Though they are "in one," until one understands s/he does not experience the connection of the two dimensions of human existence which flow, as it were, with life.[6]

Metaphorically, when one stands finally, open-eyed at the crossing in the center of one's being, the wisdom which is revealed comprehends the implications of being merged with choosing, of mind at one with morality, of reality and value undistinguished. Paradoxically, at one and the same time in losing existence it is gained. This state of insight is achieved in an instant after which the reported sensation, in Suzuki's words, is "Just like ordinary everyday experience, except about two inches off the ground!"[7], thus, the comparison to "riding on the wind." The wisdom gained is a new way of looking at life which affects one's actions. Then there exists no happiness because there is no sadness, no outer world because there is no inner one, and because there is no goodness there is no badness.

This does not mean that such a state of sentient reality implies either the immoral or amoral. Scientific and romantic reality are lived alternately by most people. That is, one fluctuates between perceived and felt experience superimposing one upon the other, finding values in the perceived world and existence in the felt world. Badness, therefore, is a projection outward onto the perceived world of badness felt. The abhorrence of badness, the doing of good, is taken to be the efforts of a self, first to make judgments and then to take corrective action. Thus, morality involves acting out implications of non-veridical perceptions of projections from the felt world and taking the corrective measures judged as "doing good."

However, with the reduction of perceived and felt worlds into one, morality must take on another significance. No longer can one adhere to some ordinary sense of "the good" which is only the result of social conditioning anyway. In living sentient reality one does not confuse the perceived with the felt; since, in becoming one, no projection can be made either from the inside out or from the outside in. Thus, one simply acts in manners adaptive to changing circumstances in ways which may be continually new. As Benoit says, one does not check his preference for the good, but "he accepts this preference with the same comprehensive intellectual neutrality with which he accepts the whole of his inner life" without "emotional preference into an intellectual partiality which would be in opposition to the establishment of inner peace."[8]

The wisdom which resolves being and valuing can be understood as a function of imagination. To grasp this we must know something of thought processes leading to sentient reality. Naming and categorizing perceived and felt reality both is taken almost exclusively to be "intellection." One dimension of intellection is reasoning or rationality: moving by (logical) rules from one described situation to another while making connections between the two and naming relationships. But reasoning only acts out the implications of having conventionally named rules of relationship. Time, space, and causality (pace Kant and Hume) arise from naming things understood either as objects or relations. One plus one equals two, can be understood in the sense of thing-relation-thing-relation-thing. As a posited

reality this meets all the conditions of time, space and causality, but put simply it is names strung out in a line. Intellection as naming objects and relations in sequence posits reality. When acted out it becomes the experience of reasoning. Intellection, to say it another way, imagines reality. As we have seen before, however, imagination functions through a supervening way in scientific reality to pose as possible a thing to be discovered which in fact is. One theory of sentient reality's attainment suggests that when intellection is carried out to its utmost extremes the true nature and folly of its assumptions cannot but be experienced. Thus, one understands finally the ridiculousness of infinity-plus-one after seeking logically and long for insight into that possibility. Put yet another way, sentient reality results from imagination seeing through itself.

In reducing the distinction between scientific and romantic realities wisdom acknowledges imagination functions in these ways. What happens further is that morality has taken on new significance, such that continually new adaptive acts are necessary to maintain the existing inner stability achieved. Perhaps this may be better understood by comparing it with log rolling, that popular lumberman's sport. One must be continually alert to what is happening while the other person rolls the log, anticipating the other's actions: not to "dump" the other, or to outwit, or to outskill the other, but simply to cope with the other's actions in an effort to maintain stability. Sentient reality lived is the state of having the ability to act in proper anticipation so as not to be thrown into the "ego condition" (the water). That state is arrived at by imagination contemplating itself until the blinding moment of insight at which time the self exists not as a self but as one with everything. In being one with everything, it is the other's

being and action. In being the other it understands action toward stability.

Though sentient reality (or something like it) is a state reportedly participated in by some, for others it remains at best only a hypothesis. Taking it only in the latter sense some comments naturally occur: One's existence without a self is not only unthinkable, it is logically impossible; Why would I want to be more than myself?; It is wrong and blasphemous to do away with morals because God gives them to us. For the more curious, questions arise like: How can one retain his freedom of choice without a self to choose?; What happens to existence per se when I am no longer as I am now?; If my self is lost can there be such a thing as knowledge? To these comments and questions, as well as to others, there are answers.[9] For our purposes here, however, other matters demand attention. Our purpose is to understand some of the implications of such a view for art, the artist, and for art education. Since that topic is so vast it can be treated in only a sketchy manner here.

First, it would be well to say that sentient reality suggests not so much a loss of the entity "self" as the recognition of its illusory nature. Sentient reality suggests a sense of being much grander than what any one "self" or group of "selves" can envision. But even that is illusory, as Suzuki suggests in his description of the cataclysmic event yielding this new insight. It is simply a new sense of reality. Nor should this be too mystical. Each of us in our lives has experienced some situation which casts life in a new way, a way more real than before. Looking back on childhood every adult knows how different reality becomes with age. As adults we think of our lives now as true reality compared with childhood. There is little mystery in this. Sentient reality is on the order of that change of real-

ity experienced by adults, except of even a more solid order.

Though each aesthetic theory assumes some different functions for art, even theories of imitation allow that art manifests true reality. What is this true reality which is said to be represented best in art? In terms of our previous simile, true reality is like being able to stay on the log with another; the accomplishment is very solid though the experience is pure kinesis, pure sensation in the here and now. However "art" may be defined, the concept of aesthetics centers very much on pure sensation which captures the eternal now. Only a glance at the history of aesthetics allows us the understanding that art is believed to represent the eternal verities. Art is that glimpse of the way things really are; though real, not always ideal, but certainly those truths about ourselves and the world which must be faced. Sentient reality is that world portrayed in art.

This conclusion about art as seen in terms of sentient reality is by no means outside the scope of Western philosophy. For example, Kant's concept of art was as a resolution of the object-subject, the is-ought distinction. "That is beautiful which pleases in the mere act of judging it," he said.[10] But we must recall that he accepted the distinction between knower and known. In sentient reality, since knower and known are one in pure sensation of the now, what was a logical problem (e.g., for Kant and others) becomes a psychological problem. How does one achieve that state of unity in which true reality is experienced?

Stated that way we seem to be asking how the artist can make his work some vision of true reality. The inclination is to assume that artists are those who have in fact achieved a state of sentient reality. More than likely, however, artists are no more or less human in respect to how they

live life than others. Biographical data on artists do not seem to lead one to believe they are a class all of whom live selfless lives of pure sensation in the now. Then how is their ability to express true reality to be explained?

Since artists are taken to be paragons of imagination functioning, it seems plausible that their efforts called "art" are glimpses caught of true reality, though without the complete conversion which grasps the illusory nature of a self. Boccaccio's version of the artist as portrayed in his book *Decameron* would appear to lend itself to such a view. Having the ability to "catch glimpses" of such reality is on the order of claiming for the artist his "genius" — it has little explanatory power. But, if it is true then others may also be allowed glimpses of true reality, for most everyone to some degree or other employs imagination. This conclusion receives credence if we look at cultures in which art is not the prerogative of a special class called "artists," but is shot throughout every dimension of the culture. Bali and Japan immediately come to mind. The Balinese culture has no need for the term "art" because everything done in that culture has as one of its dimensions, art. In Japan, where Zen is so prevalent, even archery, sword-play and the tea ceremony are considered to be artful endeavors. It would seem no accident that A. W. Dow and others saw in Japanese cultural objects the principles of art making.

But if everyone can use imagination to catch glimpses, as it were, of true reality, then it is possible even in the Western world that aesthetics is more far-reaching than we may be willing to concede. Mathematicians understand the beauty of a new formulation. One criterion of a scientific theory is unity; a feature generally presented in definitions of "art." Practitioners of all occupations can take pride in the

results of their efforts, and in this sense what they do has an aesthetic aspect. Yet, in the Western world, only painters and poets are awarded the appellation "artist," (i.e., when they make art). Perhaps this is only proper to the degree they concentrate their imagination not on a new formulation, theory, or job, but on visualizing the true reality. Perhaps the genius of the artist is his (genetically) better right brain power, or his more vivid cerebral holographic abilities. That must be for the psychologists and neurologists to decide. But since the self is, metaphysically, an imagined entity, to use imagination to see beyond a self would be on the order of imagination seeing through itself — a condition posed here as necessary to achievement of sentient reality. To the degree artists employ their imagination to see through itself (call this, losing one's self in one's work), their ability to catch glimpses of true reality and therefore to portray it is enhanced.

Elsewhere[11] I have suggested that in the artist we find the most moral member of society, and that in his work we find the unification of knowledge and goodness. The term "morality" used there was intended in a special sense. It should be evident now that the concept, 'morality,' means something different in sentient reality than in either scientific or romantic reality. The artist is moral in that special sense to the degree that his portraits are of sentient reality. In such portrayals technique and form are secondary to the content, truth of reality. Its morality is beauty. Understanding this should take us some way toward recognizing the difference between art and craft. In this, Collingwood and Croce certainly were farsighted.

If art pictures the true, kinetic nature of reality, and the artist captures this by his "visions" or fleeting glimpses of such reality, then what is the func-tion of art education? It is tempting to conceive of art education as that endeavor, more than others, which helps humans to achieve the state of selflessness. Education certainly has been viewed as the activity whereby wisdom is achieved. But in our pragmatic world, a world of individualism, of "ego boosting," of competition and free enterprise, an action-oriented world of industrialism justified on the basis of an increasingly higher standard of living for all (ideally), a proposed reduction of the object-subject distinction most likely would be to spit into the wind. Though, we must also remember that Zen is completely action-oriented and perhaps even more pragmatic than Dewey's philosophy. But even traditional humanism does not fare too well these days. Vocationalism, learning how to do one job, seems to be the order of the day. Perhaps the most to be hoped for is some examination of art with the aim of suggesting to students the true reality which art portrays. Ours is a classed society. Our recognition and acceptance of American democratic potential for upward mobility should be proof enough of that. As Samuel Johnson said, "Were it not for imagination, sir, a man would be as happy in the arms of a chambermaid as a duchess." Imagination is as essential in our society as in any other, despite our concentration on doing a job to earn money to live well. Whether it is to see through itself and achieve a new state of being, or to simply catch a glimpse as in a dream of what could be, art education has an important contribution to make to culture. If its job is thought of in some sense similar to teaching fantasy and science fiction, for example, a vision of possible pasts and futures, perhaps it will have done its work as well as may be expected.

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A REVIEW OF RAWLEY A. SILVER'S "DEVELOPING COGNITIVE AND CREATIVE SKILLS THROUGH ART"

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The purpose of Rawley A. Silver's book, *Developing Cognitive and Creative Skills Through Art* is threefold: first, to demonstrate that art activities are useful in developing cognitive ability in children with communication disorders or learning disabilities; second, to identify art techniques that can be used in evaluating cognitive and creative ability in children and adults who cannot communicate verbally; and third, to show that the use of art in therapy does not do violence to the aims of art education. She pursues these ends primarily by developing a rationale for her research studies and citing their results.

Silver argues that we ought to focus on the ability of handicapped children rather than on their impairments. She points out that some skills can be developed despite obstacles and that such obstacles can act as a spur to the development of compensatory abilities. Children whose impairment limits the usefulness of language as a mode of expression can find an alternative avenue in drawing, painting, and modeling. Language, she reminds us, occurs after, rather than before thought in the developmental process. The interaction of language and cognition, she says, is not uni-directional. Improvement in thinking can stimulate language, and thinking can be captured in images as well as by words. Thus, she reasons, the child who has difficulty in using language to deal with reality can represent his experiences by visual means. To test this proposition empirically, she asks whether art procedures can bypass language disorders and provide a ve-hicle for learning mathematical and logical concepts. The means for evaluating cognitive growth is provided by a set of Piagetian tasks that assess concepts of space, sequential order, and class inclusion, as well as by tests adapted from experiments by Bruner.

The typical design of the studies is experimental; that is, an initial assessment is followed by a treatment, the effects of which are shown in a final assessment. Some studies are of individual children; other studies use experimental and control groups. In all cases, significant improvement is reported.

In addition, Silver finds instances in which drawing provides a stimulus to language learning. For example, drawings reveal concepts for which labels are needed; drawings are sometimes given titles; people in the drawings speak, as in cartoons. She also claims that drawing provides an opportunity to use previous learning in a new situation (transfer of learning), to engage in imaginary play with the characters and situation depicted, to deal with hypothetical events and abstract ideas, and to recall experiences.

Silver also notes that art experience is useful in promoting adjustment. Through drawing, children who cannot express themselves in words can find vicarious fulfillment of wishes, give vent to feelings, communicate, solve problems, and deal with disappointments. The release of unwanted feelings in a constructive way via art restores inner peace. Success in drawing builds self-esteem. The control exercised over the production of an art work generates a sense of power.

Improved attitudes resulting from experiences in art can carry over into other curricular areas, resulting in improved learning and behavior.

Art work, Silver claims, is particularly useful as a diagnostic aid in cases where verbal communication is difficult. Drawings can show how a child perceives himself, his interests, concerns, and concepts. A series of drawings can reveal growth and change.

Silver points out that there is very little knowledge about the creativity of people with language and hearing handicaps. Existing studies are based on verbal responses, and, as one would expect, conclude that people with these handicaps are low on creativity. Silver undertook a series of studies to determine whether deafness interferes with the development of creativity. In the first of these studies, twenty-five handicapped children attended hour-long sessions each week for eleven weeks in which they drew from imagination. The results were evaluated by two panels, one of twenty educational specialists and the other of twenty art educators. Educational specialists were asked whether the art work offered evidence of opportunity to imagine, associate and express thoughts and feelings, and whether they found evidence useful in assessing interests, abilities, attitudes, and needs. The answers were overwhelmingly affirmative. The art educators were asked if they found evidence of subject matter and technique, to which the replies were an all but unanimous "yes." They were then asked to compare the pictures with those of average and of talented hearing children. Nine out of seventeen judges found no differences between the talented. Seven judges found average hearing children superior to the average deaf, two found the opposite, and eight found no difference.

The study, however, is so poorly designed that it tends to discredit rather than lend support to Silver's argument. In the first place, the questions are so broadly stated, that negative responses are all but ruled out. It appears that judges were asked to respond to eleven weeks output as a body rather than to individual works. Given such a large number of works it would be all but impossible to say that there was no evidence of opportunity for remembering, generalizing, expressing ideas, planning, commenting, etc. In addition, judges knew they were dealing with the work of handicapped children. Their compassion may have led to a more generous assessment than would have otherwise been made. Furthermore, there was no comparison of actual art works of handicapped and normal; judges were only asked to compare what they saw with what they recalled about drawings of normal children. The study would have been greatly strengthened if bias had been eliminated by careful research design. For example, the relative quality of drawings by the handicapped as compared with those by the normal could have been assessed by blind ratings, that is, ratings of drawings not identified as those of normal or impaired children. A finding of no difference then would not give rise to skepticism.

A second study was made to compare deaf and hearing populations on the Torrance Test of Creative Thinking. Twelve handicapped students were asked to integrate a pear shape into a picture, add lines to ten incomplete figures, and draw pictures using thirty pairs of parallel lines. Drawings were scored for fluency, flexibility, originality, and elaboration. Scores were incredibly high, with average scores in the 99th percentile. However, the test was administered without a time limit, but with a record of time consumed (which was not reported). The results, therefore, cannot be properly compared with norms derived from time-limited responses.

In a more carefully controlled study three professors of art and education evaluated unidentified works by twenty-two students in Silver's experimental classes, and twenty-two hearing art students in public elementary, secondary, and adult classes. The art work was judged for sensitivity, originality, and expressiveness. The findings showed that average scores of deaf children and adults were slightly better than the scores of their hearing counterparts, while the scores of the deaf teenagers were slightly lower.

In yet another study thirteen art educators made blind judgments of portfolios of sixteen deaf students in Silver's experimental classes. Judges were asked to compare the work with that of their own students — children, teenagers, or adults. The portfolios were judged for originality, sensitivity and expressiveness on a five point scale. Scores ranged from 2.23 to 3.74, with most scores above 3. If one assumes that 3 is an average score, the deaf students were generally above average. However, the findings would be more credible if judges blindly scored works of normal students too, thereby establishing a base line for interpreting the ratings for the deaf.

Additional studies, too numerous to review in detail, lead Silver to conclude that deafness does not necessarily impede the development of creative skills and that art education and art therapy can be pursued concurrently. She adds, however, that the findings cannot be considered conclusive because they are based on small samples. However, in my opinion the sample size is not nearly as great a flaw as the absence of experimental controls, such as those discussed above. Better research design may have led to less spectacular but more believable findings.

Silver continues by presenting arguments and research findings in support of the view that art therapy is not subversive to the goals of art educa-tion. She takes the position that aesthetic value does not reside only in form. Citing Kris, she contends that aesthetic value also lies in expressive or symbolic content.

In the arena of practice, she finds no conflict between the goals and methods of art education and art therapy. She claims that more than one objective can be pursued at the same time, that art experience can support cognitive and emotional goals without neglecting art values and skills, and that lessons can be structured without loss of spontaneity. To support these views, Silver undertakes a number of studies to illuminate the relationship of art therapy and art education.

Silver develops programs directed at four main objectives: (a) widening the range of communication, (b) providing tasks that invite exploratory learning, (c) providing tasks that are self-rewarding, and (d) reinforcing emotional balance. The first objective is emphasized with students who have difficulty with language. For them representation rather than design is stressed. Demonstrations are the instructional mode. With learning-disabled children whose language seems intact, emphasis is on form rather than content. Their visual-motor weaknesses are remedied by kinesthetic art activities, such as clay modeling and monoprinting in rhythmic repetitive designs. For people with both verbal and visual-motor impairment, such as stroke patients, content is emphasized. With disturbed people, emphasis is on building confidence and reinforcing emotional balance.

Art procedures are utilized to develop cognitive skills believed to be basic to mathematics and reading. These skills, identified by Piaget, are the ability to classify, orient spatially, and order sequentially. The art procedures selected involve tasks related to these three cognitive skills. For example, drawing from observation involves the ability to perceive and represent

spatial relationships. Drawing from imagination involves selection, combination and ordering. Predictive drawing, painting or modeling, by which Silver means using visual representation in temporal ordering of future events, requires spatial and sequential ordering. Through these art activities children who are deficient in language are given opportunities to solve problems and develop concepts. With these methods and goals in mind Silver developed art programs and evaluated cognitive growth.

Tasks were devised to increase and assess the ability to select, combine, and represent. For example, in one study children were given sets of stimulus cards, each containing a picture of a person, object, animal or scene, and were asked to draw a story about the card selected. The drawings were evaluated for levels of ability to select: the concrete (lowest) level, the functional (intermediate) level, and the abstract (highest) level. The concrete level is based on perceptual attributes such as color or shape. For example, an apple and an orange are both round. The functional level refers to use — they are eaten. The abstract level classifies them as fruit. In addition, drawings were rated on five levels of the ability to combine: (a) objects are isolated, (b) objects are related by proximity and separation, (c) objects are arranged on a baseline, (d) drawing shows some coordination, and (e) drawing takes into account distances, proportion, perspective, and dimensions of the paper. In evaluating the ability to represent, the lowest score is assigned to copying, an intermediate score to restructuring, and the highest score to a highly personal, imaginative or inventive transformation. Aesthetic merit, affect, and the picture title were also rated.

The studies involved pretesting of impaired and unimpaired children, providing a program for half of each

group, and post-testing. The account of the research is the major shortcoming of the book. The studies are usually described in two different places, once in the body of the book, and again in a separate chapter at the end titled "Statistical Analysis." However in neither description is there an adequate account of the experimental program, the *remediation* in Silver's terminology. Although the teachers and students were described, the duration of the program given, the training of teacher noted, and the preparation time per class stated, the crucial element was omitted: what happened in the classes. The wealth of detail in description of the studies, including rather superfluous information, such as the name of the person who analyzed the data, contrasts sharply with the absence of information on the program that brought about the spectacular results.

Furthermore, Silver neglects to control for the *Westinghouse effect*. As every graduate student knows, production at Westinghouse increased each time the illumination was increased; production also increased each time illumination was decreased. The lesson is that it is not what you do but the fact that you do it. Any attention to a group can be expected to improve the performance of that group. Therefore, the control group must be provided with a program of comparable dimensions to demonstrate that it was not the attention but the specific experimental intervention that made a difference. Silver fails to make provision for this and thereby weakens her case.

Silver continues by developing and testing art programs designed to increase the ability to order sequentially, predict and conserve. Children were given tasks devised by Piaget and Bruner, such as ordering ten sticks from the longest to the shortest, drawing the surface of the water in a tilted

bottle, representing the level of a soda as it is consumed, drawing a house on a slope, pouring lentils from a wider to a narrower container and stating if the amount is the same or different, and ordering a matrix by height and by width. The experimental program consisted of ordering color tints, comparing weights of clay, observing water in a tilted bottle, observing a plumbline, and attaching a toy house to a model hill, followed by a drawing of what was seen. Again, the experimental group, consisting of language and hearing impaired children, who were inferior to the normal (control) group in the pretest, equalled or excelled the unimpaired in the posttest.

The research is marred in several respects. The major defect is that the experimental program can hardly be considered art. The program focuses on observation. An art program certainly requires observation, but observation of itself cannot be considered art education. A second flaw is the failure to provide some sort of program for the control group. And the third is seemingly careless and repetitive research reports. For example, the number of unimpaired children is given in one instance as 68 and in the sentence immediately following the combined impaired and control group is again given as 68. Reported sample size varies without adequate explanation in successive references to the same study. Statements are repeated needlessly. Furthermore the detailed descriptions of the studies lack information that would enable readers to scrutinize the research. For example, a chart titled "Results, predictive drawing test by normal children (N-68)," is presented, but comparable data for the impaired are omitted. Furthermore, if these data are important then pre and post test data for both groups ought to be provided, not just pre or post test data for one group. Studies ought to have been fully presented in one place rather than partially presented both in the body of the book and in a separate chapter. Perhaps Silver feared some readers would be mired if reports were presented in detail in the text. In that case the reader ought to have been directed to the pages on which complete reports are given. As it stands the reader is left to locate the relevant pages unassisted.

In the program to increase the ability to perceive and represent concepts of space through drawing from observation, the testing and remediation procedures are particularly questionable. For example, the child watches as the therapist slowly and with much explanation, draws an arrangement of cylinders. The child then draws it himself. Thus one cannot be sure whether the child is drawing from what he sees or from his recollection of the therapist's drawing. In another task, the child is asked to duplicate an arrangement of blocks. This task is considered an art activity. It may be a useful experience but it is not art. Other experiences, to which the same objection applies, are arranging ten matchsticks in a straight line and placing a doll in a landscape to match the position of a doll in an identical landscape. There are no other activities reported. These three can hardly be considered an art program.

Silver describes testing and remediation procedures used with eight patients who suffered language impairment as a result of a stroke. Improvement is noted. However, the reader is offered no basis for evaluating the contribution of the program, as compared to other kinds of programs or none at all.

By way of summary, Silver points out the need for greater precision in identifying the abilities and disabilities of handicapped children. She claims that drawing procedures can serve as instrument for assessing and developing cognitive abilities such as the abil-

ity to associate and represent concepts, the ability to order sequentially, and the ability to perceive and represent spatial relationships, in those who cannot communicate verbally. These abilities, she observes, seem relatively independent of language impairment and verbal analytic thinking, and to some extent even independent of age. Inability to draw may be attributable to difficulty in processing spatial information, a defect frequently neglected in schools which emphasize verbal-analytic skills. Visual-spatial ability may be a key to certain types of cognitive functioning, and as such provide a basis for instructional grouping which is independent of the nature of the handicap.

It may well be that much of the real success of the programs is due to an encouraging and supportive atmosphere. Test score gains may be attributable to the stimulation of curiosity and provision of opportunities to manipulate, observe and reflect. In this respect Silver's programs would be of value to normal children too.

Silver urges art education for the deaf so that they can have an avenue for expressing thought and feelings. She believes that the visual arts can be a major source of enjoyment for them. Silver minimizes the distinction between art education and art therapy, claiming that the same kind of art experience can serve aesthetic and therapeutic goals. She believes that art teachers can try to stimulate cognition and adjustment without abandoning traditional goals of art teaching, and art therapists can try to develop art skills and cognitive skills without destroying spontaneity. However, the art experiences utilized in her programs make very little contribution to the aesthetic. The pictures that come out of the programs and illustrate the book are at the best ordinary.

In sum, Silver argues well for the value of art experience in the life and learning of the handicapped. Her research, however, does little to support her belief and her so-called art program turns out to be a misnomer. Better designed studies are needed to determine the contribution of the visual arts to the education of the handicapped. Let us hope they will appear.

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UNDERGRADUATE ELEMENTARY EDUCATION MAJORS' ATTITUDE TOWARDS THE TEACHING OF ART

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Abstract

The major purpose of this dissertation was to assess attitudes of students majoring in elementary education toward the teaching of art and to make recommendations for improving preparation programs at the university level which might help develop a more positive attitude.

A questionnaire, developed from relevant literature, was used to collect data for the study. Seventy-five items were reviewed for content validation by three noted art educators from different geographic areas of the United States. Upon the recommendations of the validators, a revised questionnaire containing forty items was administered for clarity and readability to twenty-five elementary education majors enrolled at two private institutions in Alabama.

The instrument incorporated a five-point Likert-type scale with choices ranging from strongly disagree to strongly agree. The subjects of the study were asked to rate each statement, indicating the degree of agreement or disagreement based upon their opinions about the teaching of art.

As a result of the sample study, the questionnaire was revised. The revised questionnaire was administered to a population of 255 elementary education majors enrolled at Alabama Agricultural and Mechanical University, Alabama State University, Auburn University, Jacksonville State University, The University of Alabama, Troy State University, the University of North Alabama, and the University of South Alabama.

After collecting the ratings from each of the schools, the responses were analyzed. A computerized item analysis provided means and standard deviations based on total scores which were reported by institution and by total population.

An analysis of the research data provided the following findings:

1. Responses from two universities indicated that students were provided adequate time in the art education courses to visit and observe in the classrooms where children are involved in art activities.

2. The students sampled in all universities indicated by their responses that they were not provided adequate materials in art education courses to enable them to participate effectively in classroom activities.

3. Responses from all universities indicated that elementary education majors had few activities while enrolled in art education courses which required special drawing skills.

4. Responses from all universities indicated that present art education courses should provide more exposure to films, filmstrips, and prints.

Additional findings are:

1. Responses from four universities indicated that art education courses provided enough time for elementary education majors to work with children engaged in art activities.

2. Responses from universities indicated that art education courses provided elementary education majors with a greater understanding of their roles as future classroom teachers.

3. Responses from three of the eight universities indicated that students felt that art education courses were

inadequate in preparing them to enter the teaching profession.

4. Responses from all universities indicated that instructors in art education courses did not stress the importance of understanding human growth and development.

5. Responses from all universities indicated that interaction between students and university professors was insufficient to enhance their proficiency in teaching art.

Based on the study, it was recommended that:

1. Preparation courses for elementary education majors be designed to foster positive attitudes toward teaching art by providing environments conducive to learning through art experiences.

2. All elementary majors be provided experiences in a variety of media and the use of various art tools.

3. All elementary majors spend time observing and/or working with teachers and artists who are working with students.

4. All elementary majors be involved in artistic experiences for skill development.

5. School administrators become acquainted with the importance of art in the curriculum.

It further was recommended that a task force be created to assess existing art programs in the state and make recommendations for improvement.

Review

Jerry W. Morris
Miami University

Statement of the Problem

The attitudinal research topic of this dissertation is certainly a credible one, one which has been typically overlooked by both those in art education and general education as well, yet one which deserves strict and immediate attention. If subscription is given to attitude theory (i.e., that attitudes ultimately have influence on human behavior), it behooves art educators concerned with the training of elementary teachers to take note of the attitudes being formulated by these trainees toward the teaching of art. As Hall contends (p. 1; p. 5), ineffective elementary teacher preparation, which fails to give just attention to proper art attitude development, runs the very real risk of creating ineffective classroom teachers of art at best, or creating elementary teachers who never attempt to teach art in their classrooms, at worst. Indeed, these are points well taken in the introductory section of the dissertation.

Although the introductory section of this dissertation develops a general argument for the study, it does so in a somewhat confusing way. First, the researcher confounds the concept of an attitude with other concepts such as knowledge and understanding (p. 1; p. 3; p. 4). Literature in the field of social psychology goes to some length in stressing the difference between the unique features of an attitude and the related concepts of belief, opinion, value, etc. (Morris and Stuckhardt, 1977). While attitude, as a concept, is related to the concepts of knowledge and understanding, attitude is not synonymous with these; neither should these concepts be used interchangeably with attitude. To do so detracts from the sophistication of the study and confuses the reader.

Second, there is no specific "statement of the problem" to assist the reader in deciphering the study. Rather, the reader must read through the introductory chapter and fit the bits and pieces together to discover the basic aspects of the inquiry.

Third, no objectives are specified for the study, and it is only through two stated "purposes of the study" that the reader gains any help from the re-

searcher in particularizing goals for the study. As presented these are: (a) "to assess attitudes of students majoring in elementary education toward the teaching of art" and (b) "to make recommendations for improving preparation programs which might help to develop a more positive attitude" (p. 7).

It is the opinion of this reviewer that these "purposes" need revision in consideration of what the study actually reports. Because "recommendations" are usually presented in the concluding phase of a dissertation or any research report, they might be accepted as a given, need not be presented as a specified purpose, and consequently, should be omitted from coverage at this time. Since this study does seek to assess attitudes, the first purpose seems credible. To accomplish this assessment, the researcher developed an attitude scale to use as a measuring instrument. It appears, however, that the development of this attitude scale should be noted as a purpose of the study as well. Had this been the case and had the researcher given more priority to the development of a valid and reliable scale, perhaps the researcher would have adhered to accepted methodological procedure in construction of the scale. Perhaps, then, the scale would possess certain characteristics required of Likert-type attitude scales. Since neither proper procedure nor essential characteristics mark Hall's method or his scale, the results from the reported study must be considered questionable at best.

Related Literature

It is this reviewer's opinion that the deficiencies exhibited in the scale and in its method of construction are a direct result of an inadequate survey of literature. The dissertation directs itself toward three main areas of literature coverage: (a) "definition of attitudes," (b) "elementary teachers' knowledge and attitudes about art education," and (c) "elementary teachers' preparation for teaching art" (p. 12). The total number of references covered amounts to only sixteen, and the majority of these are contained in the third section. Three separate references are noted in the section on attitude definition, and only one of these is from the field of social psychology. This is hardly adequate coverage considering the absolutely voluminous body of literature which exists on the subject of attitudes. Totally missing from the related literature survey are such areas of direct application as the process of attitude development or formation, the phenomenon of attitude change, theory and methods of attitude alteration, and attitude scaling methodology.

By its title alone, this dissertation is heavily invested in the subject of attitudes, a subject which is extremely complex and a subject which is pursued with sophisticated, yet explicated methods of inquiry. Certainly, an extensive related literature survey on attitude and attitude-related topics is called for as evidence that the researcher has familiarized himself with the subject of inquiry and that he has a working grasp of the topic, problem of study, and research procedures. Further, the more extensive the coverage of the literature a dissertation contains, the more grounded is the research. Because the survey of literature in Hall's dissertation is meager at best, it is understandable why the reported research possesses appalling deficiencies in method, presentation and analysis of data, as well as recommendations.

Methodology

It is in the chapter on methodology ("Design and Procedures") that the severity of the deficiencies of the study become apparent. An eight-step procedure is outlined which is primarily devoted to the construction of a five-response-mode, Likert type, attitude scale. The scale was designed to measure elementary education majors' atti-

tude toward the teaching of art. Essentially the following occurred: (a) a "questionnaire" was developed as a result of a search of the related literature and informal observations of students engaged in art activities (Also, discussions with college educators in art and with public school supervisors were used to develop the questionnaire.); (b) the resulting seventy-five item questionnaire was evaluated for "content validity" by three nationally known art educators; (c) a forty item instrument was then administered as a pilot test to thirty-four elementary education majors enrolled at two private institutions in Alabama for the purpose of assuring "clarity and readability"; (d) the instrument was again revised and some items were restated; and (e) the final form of the forty item scale was administered to 255 elementary education majors who were enrolled at eight state-supported universities in Alabama. Results from the administration were then tabulated.

The Likert method of attitude scale construction maintains as its objective the development of a valid and reliable instrument which can be used to differentiate between individuals (i.e., groups of individuals) who hold a positive attitude and individuals who hold a negative attitude toward some referent object (in this case the referent object is the teaching of art). Because of numerous methodological deficiencies, the scale reported in this dissertation is neither valid nor reliable — nor does it seek to differentiate between those who hold a positive and a negative attitude.

It should be noted that an attempt is made by Hall to assure the content validity of the scale by having three "experts" review it for item ambiguity and inadequacy. While such a step is suggested by Likert in the development of scale items, alone it is insufficient to insure validity.

Also, content validity is partially attended to in the construction of scale items, as items were reportedly based upon the literature, interviews, and classroom obervations. These attempts to insure validity must be viewed skeptically, however, since no reference list noting the literature search is presented and no information from the interviews or the observations is given. Further, the researcher does not report this step in procedure as being related to validity.

A check of the items comprising the scale also casts doubt upon the content validity of the scale. Scale items should not exist as dual statements (e.g., "students were exposed to exploratory feelings and activities in this course resulting in some fun"). Dual statements allow the subject to react to two different areas of content (e.g., "feeling" and "activities") thereby confounding the nature of content covered by the item. Likert emphasizes the need to eliminate such items from further consideration.

A check of the reported scale items also reveals that they cover a range of subjects (e.g., "creativity," "art education programs,""student's attitude," "applied experiences," "college and university instructors"). Without an attempt on the part of the researcher to clearly delineate the content domain of "the teaching of art," an important initial step is omitted which is deemed essential to the validity of the scale.

No statistical methods of item analysis were reported as being used in the study. Neither were checks of the reliability of the scale. Had the researcher adhered to Likert's method, certain steps could have been taken to achieve a sound attitude scale. Let us review some probable steps (Stuckhardt, 1976).

The initial procedural step in scale construction outlined by Likert is to collect a large number of opinion statements about the attitude referent. To insure the content validity of the scale being constructed, several important considerations must be attended to during this phase (Borhonstedt, 1970). First, the boundaries of the attitude domain must be determined; second,

these boundaries must be clearly delineated; third, statements must be collected which exhaust the content domain.

The second procedure outlined by Likert calls for an initial editing of the collected statements. Here, all statements are reviewed, similar ones are consolidated, and dual statements are made into two separate items.

In the third procedure, each item is further scrutinized and rewritten to conform to informal writing criteria. Likert (1967, p. 90-91) stipulated the following criteria:

1. It is essential that all statements be expressions of desired behavior and not statements of fact.
2. The second criteria is the necessity of stating each proposition in clear, concise, straight-forward statements.
3. In general, it would seem desirable to have questions so worded that the modal reaction to some is more toward one end of the attitude continuum and others more in the middle or toward the other end.
4. It seems desirable to have the different statements so worded that about one-half of them have one end of the attitude continuum corresponding to the ... upper part of the reaction alternative and the other half ... (to the) lower part of the reaction alternative.

Likert's fourth construction procedure involves selecting statements which appear to be best suited for a final scale. Selected statements should effectivly differentiate between subjects in a group who have a favorable attitude and those who have an unfavorable attitude toward a designated referent (Likert, 1967, pp. 91-93). To check the differentiating ability of an item, a trial scale possessing several potential items should be constructed for administration to the group or part of the group whose attitudes are to be measured (Likert, 1967, p. 91). Again, the purpose

of this fourth procedure is to allow for checking an item's discriminating ability through a trial scale. Although Hall did develop a "pilot test," the purpose was to check its "clarity" and "readabilty," and any attempt to verify the discriminating power of items was ignored.

Selecting items for the trial scale, from among those collected, is a process which may be accomplished in numerous ways. Stuckhardt (1976) applied Kerlinger's (1964, pp. 582-586) Q-sort technique as an objective method for selecting trial scale items. The development of "keyword qualifiers" may also be used as a technique for trial scale item selection (Stuckhardt & Morris, 1980). This latter technique is more subjective than the formerly mentioned one and seeks to compile the collected statements into common areas of content. Sample items are, in turn, selected from each content area to facilitate representation of the total content domain.

The fifth procedure in the Likert method of constructing an attitude scale is to administer the trial scale and analyze the returns for the purpose of selecting items which will comprise the final form of the scale. Items selected are those which indicate an ability to discriminate.

The best known index of item discrimination is the statistically derived item analysis (Stuckhardt, 1976, p. 79). Two methods of item analysis consistently appear in attitude research. The first is what Likert (1967) has referred to as the criterion of "internal consistency" (p. 93). In this method, consideration is given to how well an item distinguishes between a high and a low criterion group as established by the total scores calculated for all tested subjects (usually the top and bottom 27 percent). The second method is to compute the coefficient between individual item scores and the total scores for all the tests and to select those items

which correlate highly with the total scores (Likert, 1976, p. 91; Stuckhardt, 1976, p. 79). Those items which generate the most favorable scores are selected for the final form of the scale.

A computer program has been developed by Kohr (1971) for Likert type scale analysis. This program incorporates both of the item analysis procedures previously noted, and it computes Henrysson's (1963) adjusted item total correlation (R), another index of discriminating power. The Kohr program also computes two figures of reliability, Cronbach's (1951) coefficient alpha and Guttman's (1945) Lambda-3; and it provides a projected estimate of the number of items required of a final scale to reach reliability coefficients of .60, .70, .80, and .90. Ideally, a final scale should have a reliability coefficient of at least .78 (Borhonstedt, 1970, p. 87).

The last procedure in the Likert method is to select the most suitable items for inclusion in the final form of the scale. After these final items are compiled, they are randomly selected for order of presentation. The final form is then administered in the designated research setting.

Results and Discussion

To present and analyze the data obtained from the reported scale, the researcher compiled data items into one of four categories: (a) strategies for valuing art, (b) strategies for producing art, (c) strategies for perceiving and responding to art, and (d) strategies for teaching art. Why this step was taken still remains a question to this reviewer. Perhaps, the procedure would be acceptable if it reflected some attempt to deal with the scale's validity, but this does not appear to be the case. At least no such explanation or rationale is presented. It is interesting to note that when categorized into four major headings, the scale assumes a profile which is no longer one-dimensional; rather, the scale becomes a series of four sub-scales, none of which possess a suitable number of items required to produce high reliability coefficients (Seiler & Hough, 1970, p. 171). Hall never considers the categories of items as subscales, and confusion remains as to why the categories were employed.

To present data, draw conclusions, and offer recommendations, the researcher compiled means and standard deviations of item responses in each "category." These data were first presented and discussed by institution and secondly by total sample. After concluding that the elementary education majors' attitude toward the teaching of art — in all "categories" — was negative, recommendations for improvement of elementary teacher preparation were presented. Evidently, data and discussion were handled and presented in this manner to accomplish stated purposes of the study (i.e., to assess attitudes and make recommendations). However, the result is a misuse of an attitude scale as a research instrument. Several examples can be noted.

First, the researcher compared group means to the Likert five-step continuum. Scores greater than 3.0 were interpreted as an indication of a positive attitude because they were greater than the neutral point on the Likert scale. Scores less than 3.0 were interpreted as a negative attitude. However, it cannot be assumed that the neutral point on an attitude scale corresponds with the midpoint of the range of possible scores from a group. Instead, the acceptable point of comparison is the group mean score, and this point of comparison varies from group to group (Edwards, 1957). Whether an attitude held by a group is positive or negative is a relative matter. To establish the degree of favorability or unfavorability of an attitude, it is common practice to compare mean scale scores for dissimilar groups or to compare mean scale scores for the same group prior to and after some treatment (Edwards, 1957, p. 157; Stuckhardt, 1976). Also, in some cases it

may be beneficial to compare the score of an individual to the mean established for the group with which the individual is identified (Stuckhardt, 1976, p. 63). In each of these conditions, the group mean is the point of origin for score comparison — not an arbitrary neutral point on the Likert continuum, as was used by Hall.

It is interesting to note that there was no known group comparison presented in the study. If the researcher sought to assess whether elementary education majors' attitude toward the teaching of art is favorable or unfavorable (and if favorability or unfavorability is a relative matter which is dependent upon group comparison), then it would appear that an appropriate step for the researcher would have been to use a dissimilar group for scale score comparison. As the study now exists, the results only indicate that elementary teachers tend to share similar views on certain items.

In concluding the dissertation, the researcher compiled a list of all scale items which were favorably agreed upon by the subjects and presented them as "major findings." This is, indeed, an unorthodox use of an attitude scale. One point might be noted with regard to this step: the purpose of an attitude scale is to discriminate between subjects who hold a positive and a negative attitude — not to seek items with which the group favorably agrees. To do so relegates the nature of an attitude scale to that of an opinion survey, and these are two distinctly different devices.

Ten recommendations terminate the dissertation. These appear to be totally unrelated to — and unsubstantiated by — the research presented.

Reviewer's Commentary

When a research effort of quality is initiated, it is incumbent upon the researcher to be thoroughly familiar with the phenomenon or phenomena being investigated, with prescribed or appropriate methodology, and with how best to use results generated from the study. Without proper familiarization the entire piece of research runs the risk of being misguided, of fumbling through a series of confusing procedures, and of having a negligible impact. An extensive review of related literature and presentation are basic steps to take for guarding against these deficiencies. Such a review and presentation operates to ground and support the entire research effort, and its importance cannot be overlooked. Unfortunately, this dissertation does not present even an adequate survey of literature — much less an extensive one. It is little wonder that the study contains the gross deficiencies which have been noted.

This condition is especially tragic in a doctoral study where the process of learning correctly how to conduct research is a primary objective. It is the responsibility of the candidate to be thoroughly familiar with his or her research topic, and it is the responsibility of the candidate's adviser and committee to challenge the candidate to always "know more." If the basics of research are not instilled in the "dissertation stage" of a professional career, it is highly unlikely that they will appear at some later point in time.

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AN EXAMINATION OF ART EDUCATION PROGRAMS IN COMPREHENSIVE SENIOR HIGH SCHOOLS: IMPLICATIONS FOR PROGRAM DEVELOPMENT

Harry A. Garton
Temple University, 1978

Abstract

The primary focus of this descriptive study was an examination of the basis of program adoption and/or program development in art education in the twenty-one comprehensive senior high schools in the School District of Philadelphia (1966-76). Personal, structured, executive interviews, conducted in the work setting with art teachers responsible for art programs, were the source of data for this study.

One significant finding was that program adoption and/or development was random, and not based in a rationale. Three possible courses of action are presented; one is recommended: secondary art teachers must be prepared to examine and apply alternative rationales for program development.

It is hypothesized that theoreticians and philosophers of art provide the premises from which art education derives its substance. It is hypothesized that Curricularists develop the criteria for selecting and ordering that content. It is further hypothesized that art educators translate that content to students in secondary schooling. Program development necessitates collaboration.

Review

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Statement of the Problem

Kerlinger (1973, p. 16) provides three criteria of good problems and problem statements. One, the problem should express a relationship between two or more variables. Two, the problem should be stated clearly and unambiguously in question form. Three, the problem and problem statement should be such as to imply possibility of empirical testing. A problem, then, is an interrogative sentence that asks: What relation exists between two or more variables? The answer is what is being sought in the research.

"The basic problem of this study was to describe the current status of program development in Art Education in the comprehensive senior high schools of the School District of Philadelphia." (p. 1). The real problem in this paper is that there is no problem. "To describe" fails the test of a good problem in at least two categories. No relationship between variables is expressed and no question is asked. Empirical data might be part of the descriptive act, but when no question is asked, to what might the data be applied? Garton suggests that the descriptive act would provide basis for implications for program development for art education in secondary schooling (p. 1). This aim is quickly countered when he states, "No claim is made, or can be made, in this study, to relate findings to any other population" (p. 30). (The population supposedly identified as the art departments of "the comprehensive senior high schools of the School District of Philadelphia. . . .")

"To describe the status of program development" is a legitimate purpose. However, when no relationship is stated or hypothesized between the "status" and another variable, any further discussion lacks substance or direction. The reviewer wonders whether Garton intended to investigate the relationship between the status of program development and art education theory, or effective art instruction, or teacher

training. Ambiguity in stating a problem leads to ambiguity in interpretation.

In establishing the importance of the study, the investigator provides a brief review of historical developments which preceded the present situation in the Philadelphia Public Schools. This overview, while interesting, might have been more appropriately placed in the Related Research Section since it did not establish a credible need for the study nor did the review enhance the importance of the study to the field. The motivation for the study is stated as a recommendation, made by Tobye Pellman Polk, to secure "nominal data relative to program development." (p. 9). Polk is the author of "An Examination of Elective English Programs in Comprehensive Senior High Schools: Implications for Program Development," an Ed.D. dissertation completed at Temple University in 1976.

Ziegfeld (1959, p. 153) provided a list of five generalizations relating to the need for survey and descriptive research in art education. In addition, he provided four characteristics of good surveys. One of the first statements encountered is, "The right questions must be asked." The hazards of providing answers to the wrong questions or providing answers without asking questions are revealed in the subsequent chapters of this paper.

Related Research

The section typically identified as Related Research was entitled "Art Education: A Perspective." An insightful comment in the first paragraph indicated that ". . . it becomes apparent that art education has been fraught with many of the same conflicts and problems concerning program development and content selection as many other subject matter areas in schooling." (p. 10). This observation raised the hope that a thorough investigation into the ways which researchers in "other subject matter" have analyzed the "ap-

parent" problems would lend insights for the field of art education. This anticipation was quickly dashed. The total of twenty-seven citations in the section included, at the most, only three primary sources, none from outside the field of art education. Four of the contributing authors to *Programs of Promise — Art in the Schools* were cited, all respected writers in the field, yet, in this case, lacking the credibility of primary literature sources. Many conflicting opinions were offered as to the state of program development in art education, but little evidence from other program developers or practitioners. The conclusion offered, ". . . that program development in art education is unguided and lacking in systematic approaches," is based upon selected opinions rather than any attempt to assess and synthesize the state of program development.

Studies should account and build upon what has transpired. The related research section has not described what has transpired in program development in art education nor has the author reported related research in any other field of education. Further development of the questionable problem must, therefore, be built upon the shifting sands of opinion.

This review of the literature was a brief summary of selected authors in the field who have contributed to art education theory during the period 1966 to 1976. The review was intended to provide a basis for understanding the "major conflict" in art education in the preceding decade. The major conflict was "between those who believed that accountability could be attained only through structured approaches to courses . . . , and those who believed that only courses which fostered students' self-expression could protect the creative climate essential to appreciating and/or producing art." (p. 10). Authors included in the review were "behaviorists" (p. 13) Eisner, Ecker, Hubbard and Rouse and "experimentalist" Schwartz. Feldman's writing was summarized as a

problem-solving approach. Other influential behaviorally oriented sources the author includes are the Central Midwest Regional Educational Laboratory and the Northwest Regional Educational Laboratory.

A separate section is given to exploring opinions on the content of art. Included in this sampling are Stevini, Hausman, Kaufman, Burgess, Mittler, Paston and Dimondstein. The conclusion offered from these authors is "that program development in art education is unguided and lacking in systematic approaches." (p. 27). The nexus between this conclusion and the state of program development in art in Philadelphia illustrates a popular fallacy which represents a danger to educational theory. *Post hoc, ergo propter hoc:* after this, therefore, caused by this. The implicit assumption underlying the review section is that the state of the literature reviewed had some causal relationship with the state of program development in Philadelphia as revealed in the proposed survey.

Research Objectives

"An examination of the present status could enable the derivation of implication and recommendations for systematic program development in the future." (p. 9). If the primary objective of this study was "an examination of the present status of art programs in Philadelphia," that objective was fulfilled. However, since no problem or a conflict capable of resolution was previously stated, there could be no hypotheses and, indeed, there were none.

A key to understanding this paper can be found in the last paragraph wherein Garton states, "Informal observations by administrative and/or supervisory personnel, without stated criteria, are 'ad hoc' judgments." (p. 72). Lack of problem definition, coupled with the absence of directional predictions or hypotheses as criteria must, by logic, make this an "ad hoc" paper. The re-

viewer experienced resultant difficulty in determining whether this was a descriptive study, an *ex post facto* study, an observational or historical study or a combination of the above. Although a survey was used, the information sought made classification difficult. Many of the questions were of an *ex post facto* nature. According to Kerlinger, *ex post facto* research that is conducted without hypotheses, without predictions — research in which data are collected and then interpreted — should be considered dangerous in its power to mislead. Without hypothetical relationships to guide data evaluation, explanations or predictions do not lend themselves to nullifiability. Whatever the observations, new interpretations can be found to "fit the facts." Kerlinger (p. 392) suggests a good rule to follow would be to ignore the results of any *ex post facto* study that does not test hypotheses.

The essential steps of survey, observational or historical research are much the same as those involved in other types of research. The problem must be defined; the data gathered, evaluated and synthesized; and an accurate account of the subject must be presented. Borg and Gall (1971) state that it is especially important that the writer carefully defines his problem and appraises its appropriateness before committing himself. Some problems have little or no chance of producing significant results because the problem is poorly defined or trivial in nature (p. 261).

Methodology

The section subtitled, "Research Design," indicates that there were two distinct but interrelated aspects addressed by the study. First, formal interviews were conducted in twenty-one comprehensive senior high schools to determine the basis for adoption and/or development of art programs. Second, from the interviews, attempts were made to identify implications for pro-

gram development in secondary schooling, implications for the preparation of secondary art teachers and implications for further study.

The survey interviews were administered to the entire population — twenty-one individuals with some responsibility for the art program in their high school. The interviews were conducted A) in the classroom while students worked, B) before school, C) after school, D) during the teacher's preparation hour, E) during the teacher's lunch period, and F) over the phone. Difficulty would be experienced creating any more variables for twenty-one respondents. In addition, ambiguity in questions and terminology provided a resultant confusion in distribution of answers. A question and discussion on page 63, illustrates the lack of clarity and resultant ambiguity of response.

Question: B. Implementation of Program
           1. Steps in Implementation
           2. Breadth of Implication
Discussion of Responses: . . . of those five who claimed the art program was implemented in its entirety, four also reported the apparently conflicting claim that the program was implemented in stages.

Had a good problem been stated and research objectives refined, well constructed survey questions might have provided information of value to the field. Unfortunately, the information represents useless answers to vague questions.

Results and Discussion

Despite the lack of direction or form in the beginning chapters of the paper, Garton provides an interesting picture of the state of a large city art program. However, because of the questionable research design and methodology, many of the conclusions must also be questionable. Garton states that "without a consistent set of statements that describe and explain an approach to program development, there is no con-

nection between and among the courses that are compiled." The reviewer's question to this logic is, "Would the existence of a set of statements describing an approach, therefore, make a compilation of courses a program?" The reviewer also questions the scope of the implied recommendation. If a "consistent set of statements" is appropriate for a system, then shall we be consistent statewide? Nationwide?

Reviewer's Commentary

One can only speculate whether Garton's efforts could have made a contribution to program development in art education. Lack of scholarly responsibility on the part of his committee must certainly be mentioned. Guidance in problem definition, problem significance, problem clarity and potential for resolution should be the responsibility of the doctoral advisor and the dissertation committee.

A minor, yet perplexing issue is raised in reviewing the first two pages of the dissertation, the title page and the approval page. The title page indicates the paper was submitted in partial fulfillment of the requirements for the degree of Doctor of Education. Yet the approval page indicates that the paper was approved and accepted in partial fulfillment for the degree of Doctor of Philosophy. The reviewer resents the implications of this "oversight" for both art education and the degree granting process.

The results and implications of this study should not be taken seriously. Lack of form made understanding of content very difficult and determination of validity impossible. If doctoral dissertations are to be a means for examining problems and issues in the field, then the candidate and the committee have a responsibility to present their work in comprehensible form. This reviewer experienced feelings of animosity and chagrin upon the initial

reading of the paper and this made objective analysis of Garton's efforts very difficult. Those who are attempting to provide a sense of direction to research in art education deserve better attention to acceptable form to enable conscientious attention to content.

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YOUNG CHILDREN'S ACQUISITION OF SELECTED CONCEPTS RELATED TO ART, READING READINESS AND MATHEMATICS THROUGH ART EXPERIENCES

Cynthia Monique Manet, Ph.D.
The Florida State University, 1978

Abstract

The purpose of this study was to determine whether concepts related to art, reading readiness and mathematics could be taught to three and five-year-old children through art experiences and whether there would be an observable difference and progressive change in the art products.

Concepts identified by professionals were described and identified as the children viewed and talked about the art prints and the collage they were constructing.

Eight private, middle class day care centers in Leon County, Florida were randomly selected to participate in this study. From these schools, 29 three-year-old and 30 five-year-old children were randomly selected as subjects.

Two instruments were designed by the investigator. One measured concept acquisition and one rated the collages and their changes over the four sessions.

A list of concepts was presented to one professor and three graduate students in each area of: Art Education, Language Arts, and Mathematics Education, with a request that those concepts in their area, applicable to preschool and kindergarten children be underlined. Early Childhood graduate students also submitted a list for cross validation. Concepts identified by three out of four were selected and were validated in a reliability study with four-year-old children. A final list of twelve concepts was obtained by deletion of easy and ambiguous concepts.

In this study pre- and posttests were administered. At each of four treatment sessions for the experimental group, concepts were presented. A reproduction of an abstract painting, having salient concepts for that session was presented as a stimulus.

These concepts were identified and described in the prints as they worked on the construction of collage from precut paper in differing colors and shapes. The control groups were given the same art materials but no treatments.

Data revealed statistical significance for both ages in favor of the experimental groups in the acquisition of the concepts.

No significant difference was found in the control groups on the pre/posttest comparison in acquisition of the concepts. Both five-year-old groups of children did significantly better on the posttest than either of the three-year-old groups.

Collage scores were judged on the art criteria of: focus, unity and direction. Data indicated that both experimental groups as a whole were above both control groups as a whole after the final treatment. The three-year-old experimental group scored higher than both the three- and five-year-old control groups. Scores for both experimental groups increased as the treatment sessions progressed. Three-year-old control subjects lost points while five-year-old control subjects gained in the beginning but leveled on the last three sessions.

In this study where concepts were presented within context of the art experience, acquisition was accomplished. The children's art products also improved as they mastered them. Further research is recommended.

Review

Sonia M. Forseth
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Statement of the Problem

The purpose of the study was to determine whether concepts related to art, reading readiness, and mathematics could be taught to three- and five-year-old children through an art medium. It was hypothesized that introducing and talking about these concepts while children viewed art prints, and manipulated and used art materials would not only facilitate the learning of concepts, but would change the art product they produced as the concepts were acquired.

Related Research

Manet conducted a comprehensive and sound review of literature. The literature was related to the following areas: (a) Developmental Studies in Art and Intervention, (b) Values in Art; (c) Art and Language as Communication, (d) Problems in Product Evaluation, and (e) Concept Formation and Transfer.

Manet indicates that (a) the more elaborate verbal and visual concepts helped children develop more complex art expressions. The art expressions as form of communication are reflecting an extension of the verbal and visual concepts presented. This shows the importance of art in relation to young children and learning. (b) The value of art in teaching concepts stimulates communication, cognition, and adjustment without neglecting or interferring with development of the sensitivities to art values and skills in art techniques. (c) Communication through and about graphic expression is the beginning of academic learning. (d) Preschool teachers can judge cognitive content in the drawings (art products) by relatively simple techniques, i.e., by assigning a familiar subject to be drawn and by counting the number of features of the subject. These evaluations are needed in a program of fostering cognitive development through drawing. (e) Learning a concept means learning to classify stimulus situations in terms of abstracted properties like color, shape, position, number and others. Based upon the review of the literature Manet states that the study was developed to measure the acquisition of selected concepts through the use of art experiences as a valuable means of relating the divergence or open-endedness of art, to the convergent areas of reading readiness and mathematics, thereby facilitating the transfer of these concepts through the medium of art.

Methodology

Subjects: The sample consisted of fifty-nine children, ages three and five years old. Twenty-nine three-year-old and thirty five-year-old children were randomly selected from eight randomly selected middle-class day care centers.

Dependent Variables: Two instruments were used in the study. (1) The SMART Test (Survey of Math, Art and Reading Readiness Trials) designed by the investigator to measure the acquisition of four concepts broken down into twelve subconcepts. (2) The Rating Scale for Collage Evaluation designed by the investigator and two knowledgeable professors to visually and verbally measure the art criteria of focus, unity, and direction in the children's art collages produced during the treatment sessions.

Independent Variables: Eight student volunteers from upper level undergraduate and graduate education courses were trained as testers. Controls were placed on the use of the room at the day care center where treatments were being administrated. There was a control and an experimental group. Procedures in preparation for the study were as follows: identification of related concepts to be used with the children

were the result of Manet's efforts; composite lists of terms were given to one professor each in Art Education, Language Arts-Reading Readiness and Mathematics; final test yielding a total of 50 concepts and a pilot study narrowed the original fifty concepts to twenty-eight. All four treatment sessions were administered by the investigator.

Treatments

There were four treatment sessions in which a child was exposed to an art print and a collage exercise. Each one was designed with a general category for the purpose of identification — Session One: Color; Session Two: Line; Session Three: Shape; and Session Four: Space. Each category had three subconcepts affiliated with it. The control group only participated in the collage exercise.

After the discussion children were given art materials to make a collage. Randomly selected collages from the control and experimental groups were rated on unity, focus, and direction by three judges.

Results and Discussion

Four hypotheses were tested. The first two hypotheses indicated an analysis of variance and computed on two main effects, age and treatments. The critical level of acceptance was set at .01.

Significant differences were found on both variables favoring the treatment group, and age was a significant factor in learning the twelve subconcepts.

The last two hypotheses were stated examining observable differences between treatment groups on art products. Manet concluded that treatments did make a difference on the collage products, and this effect did effect a definite change in overall collage art products as the children acquired the concepts in the context of the treatment. Manet concludes that art is a viable means of learning common con-

cepts by manipulating the art materials and being reinforced by the teacher when the child verbalizes the concept. Further evidence indicated that children are able to learn concepts about art, reading readiness, and mathematics, and that there will be a difference in products through art experience which includes viewing art prints, manipulating materials, and talking about the concepts presented by the teacher.

Manet suggests further research to be designed to examine the evaluation of young children's art. This study used only three art criteria in determining changes in art products. Manet suggests that others be explored.

Reviewers Commentary

The reviewer found the dissertation research a worthwhile topic, but difficult to follow. The organization of the written work lacked logic, and inappropriate test statistics were used to analyze data. However, this is not indicative of a poorly designed study. On the contrary, this study was well designed and well executed, but fell short in the analysis of the data and reported results.

A major criticism concerns the handling of the test statistics. An analysis of variance was reported on two hypotheses indicating significant differences on two main effects. Pretest results on one hypothesis indicated a significant difference between ages at the .01 critical level. The age difference favored the five-year-old group. Manet stated that this indicates this age group was more familiar with some of the concepts. Manet further stated that although the five-year-old subjects showed a significant difference in comparison with the three-year-old subjects, the individual experimental and control groups were evenly matched and started at approximately the same level of knowledge of the concepts presented on the SMART Test. No statistical correction was used to adjust this difference on posttest results.

The reviewer questions the validity of the conclusions on the first two hypotheses which state that there will be no significant difference in conceptual acquisition of these concepts between age groups of three- and five-year-old children, and no significant difference occurring between treatment groups. The treatments tested four concepts: color, line, shape, and space. No analysis of variance was done on each of these variables in respect to the main effects: to conclude that there was a significant difference in concept attainment by comparing treatment groups and age is not sufficient evidence that concept attainment took place. The reviewer questions to what extent was each acquired, and which concept actually affected the art product.

The evaluation of children's art products is the most important outcome of this study. Manet has opened some fresh insights in art evaluation. The approach in this study should be further explored and developed. However, the handling of the analysis of raw data on this is questionable. Manet did not complete the analysis. The evaluation scores were given and compared between treatments. The high scores favored the experimental group. Cumulative scores which were the results of judges were totaled and compared. No test statistic was used on the raw data. Some test statistic for significance should have been used on such data.

In conclusion, this reviewer believes that this study has contributed evidence that the use of art has interdisciplinary effects on young children's concept attainment. It supports the notion that art is a necessary basic learning experience for children, and is required in helping children develop concepts fundamental to the learning of reading and geometric and topological spatial notions in mathematics. Manet should be encouraged to further explore evaluation methods of young children's art as this appeared to be the strength and contribution of this study.

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THE USE OF AN OBSERVATIONAL SYSTEM FOR INSTRUCTIONAL ANALYSIS (O.S.I.A.) AND SOME ETHNOGRAPHIC METHODS FOR THE DESCRIPTION OF AN "ARTISTS-IN-SCHOOLS" PROGRAM-MODEL

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The Ohio State University, 1978

Abstract

In recent years, the evaluation of the effectiveness of the Artists-in-Schools Program Models has come to be of tremendous concern. But in spite of the importance attached to the systematic investigation of these programs little has been done to provide useful and reliable information on the outcomes of such programs.

The purpose of this study was to explore the use of the "Observational System for Instructional Analysis" (O.S.I.A.) by Hough, et al., 1972, and certain ethnographic methods in describing the program process of an "Artists-in-Schools" (A.I.S.) model in which this author was the artist. The focus of the investigation was on a local situation and the primary purpose was to describe the instructional behaviors of program participants. The major question for the study is as follows:

What was the nature of the immediate and descriptive information provided through "The Observational System for Instructional Analysis" and ethnographical methods about the first, third and fifth days of the program-model studied?

The need for the facilitation of data relevant to the major question led to the formulation of the following five subquestions:

1. Which were the behaviors most practiced and what was the nature of moves from one behavior to another by program participants?
2. What were the strategy patterns, mean percentages and frequencies by five-second intervals of behaviors manifested by teachers, students and artist?
3. How were manifested program behaviors functionally distributed — that is, what were the mean percentages and frequencies of behaviors that were substantive, managerial, appraisal and instructionally non-functional?
4. Which were the program objectives promoted and practiced during the program process?
5. What was the nature of ethnographic information provided through enumeration-samples and participant-observation about the number of students that participated in the program, the actual length of the program and some participants' behaviors that were not recorded through O.S.I.A.?

The dissertation consisted of five chapters. The first chapter presented the need for an objective study of the A.I.S. It also stated the problem, purpose and significance of study. The chapter ended with the definition of terms used in the study.

The second chapter presented an overview of literature in two areas: (1) Statements by proponents of the A.I.S.P., and 2) Criticisms of the A.I.S.P.

The third chapter presented the design of the study. It described the instrument used for the investigation, rationales for using O.S.I.A., the development of program objectives and the procedures used to gather data "live" during the program process. It concluded with a description of data analysis procedures.

The fourth chapter presented the data

analysis and the findings of the investigation. It contained the description of the program behavior patterns. The findings portrayed that the O.S.I.A. instrument was able to pick up shifts in the behaviors of program participants and indicate that the artist in the classroom played the role of a teacher.

The fifth chapter summarized the study. This included the conclusion that the O.S.I.A. could be considered an adequate observational instrument for gathering A.I.S.P. behavioral data and data on the program characteristics through both live and video taped observations of the particular program investigated. In addition, it was indicated in the chapter that the O.S.I.A. and the ethnographic methods employed could be tested and used by art educators and the Endowment to describe and evaluate the process aspects of A.I.S.P., based on the fact that the study revealed them to be valid and feasible for such purposes.

Review

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Statement of the Problem

For his major problem for investigation, Oru asks, "What kind of immediate and descriptive information will 'The Observational System for Instructional Analysis' and ethnographical methods provide about the first, third, and fifth days of the program — model studied?" (Oru, p. 17). The question seems secondary to problems treated in the "Introduction and Review of Related Literature."

Oru provides a brief historical introduction on the origins and purposes of the National Foundation for the Arts and Humanities, the National Endowment for the Arts, the Artists-in-Schools programs and the intent of Congress in their formation. He describes the Greater Columbus Arts Council Artists-in-Schools program as a model for A.I.S. programs. Their director of A.I.S. programs mentioned by Oru included over 72 programs in the following sections: dance — 3, drama — 2, film — 12, literature — 21, and music — 34. Only one in the visual arts was mentioned, that one taught by Oru and used in his study. As an A.I.S. artist, trained in O.S.I.A. techniques, he used himself as the experimental program model. Each of the programs described by Oru used some degree of performance, demonstration, interaction between the artists, students and teachers, and frequently resulted in student made examples or performances which were discussed and critiqued by the artist.

Oru describes two previous attempts to evaluate A.I.S. programs. One by CEMREL, Inc., *A Report on the Training of Evaluators, Artist in Residence Project 1970-71,* and the other of the Western Arts Foundation program for the National Endowment for the Arts. He criticized both, using articles by Eisner (1974), Day (1978), and Smith (1978). Their argument is directed more at attempts to gloss over negative factors and over generalize the successes of the programs, avoid the issue of evaluation, or fail to set a definite policy for A.I.S. programs, than towards specific methods of evaluation such as student attitude surveys, pre-posttest procedures, questionnaires to adult participants, narratives, interviews, visitations, follow-up activities, and so forth. The authors make excellent cases for their criticism, but are not addressing the problem addressed by the study program. Eisner suggests six positive criteria for evaluating artist-in-schools programs which Oru quotes in full. Briefly stated, they are: 1) How many students are in the program, what percentage of the school population are they, and for how long are they in the program? 2) What are the satisfactions and dissatisfactions of the relevant par-

ticipating populations, i.e., students, teachers, administrators, and parents? (We might add, artists.) 3) What are the program's goals and the extent to which they should be realized? 4) How long should the funding last? 5) What factors led to the successes and the failures within the program, and 6) What is unique about what the artist offers that cannot be obtained elsewhere?

Written in 1974, such criteria have been somewhat standard in many State Department of Education evaluation procedures since the late 1960's, whether dealing with art or non-art programs. They have probably been used by some state and local arts councils as well. These criteria lend themselves to questionnaires, interviews and visitations.

Criteria 6, the uniqueness of the artists' offerings is perhaps not considered as often as it could be, and might be the heart of the evaluation. If anything, the interaction analysis methods may address this criteria very well. This possibility is overlooked in the current study. That CEMREL, Inc. and the NEA used evaluation techniques reliable enough to reveal weaknesses and negative factors, even though they did not publicize them, does not seem to have entered into the discourse. The need felt by the agencies to gloss over weaknesses, dissatisfactions, and negative factors through generalized reportage, or their failure to set policies for A.I.S. programs, raise ethical and political questions which need answers. It is not within the purview of this review to do so.

Oru's Review of Related Literature continues a similar argument with similar references. It focuses more on the same issues than to review literature about various methods to evaluate A.I.S. programs, such as Robert Stake (1975), a publication sponsored by the John D. Rockefeller III Fund. Nor does Oru's review of literature include detailed discussion of other methods of interaction analysis, except for broad references and generalizations of his own. Why, for instance, is the O.S.I.A. more appropriate than the system of Flanders and Amidon, which he mentions in passing, or others? He also provides no justification for using O.S.I.A. methods instead of surveys, questionnaires, visitations and interviews.

Oru does say about the O.S.I.A., "the system has been utilized effectively in research by Hough, et al. (1973), Sevigny (1977), Hansra (1978), Kaiser (1974), Layne (1974), and Feldens (1976)" (p. 40). He did cite the O.S.I.A. system as being used in an in-service training program for a school district, a Title III training program for E.M.E. (?) students, and in-service training courses taught at Ohio State University. He does not describe the programs or discuss them, besides which there are problems in checking his sources. Of the six references mentioned above, Hansra is not listed in the bibliography, and sources for Kaiser, Layne, and Feldens are *Dissertation Abstracts*.

Oru states further, "After a review of these studies and many others involving the use of interaction analysis systems (Flanders, 1963, 1965-67; American Association for College for Teacher Education, 1966; Anderson, 1965; Hoffman, 1961-63; and Belanger, 1965), it became evident that if there is an approach which has been most persistently used in recent years, it is interaction analysis" (pp. 40-41). This seems like an over-generalization since descriptions of the research are not provided. Again, four of the six references are not listed in the bibliography; Flanders 1963, and Berlanger 1965 are the exceptions. Too frequently, it seems, his references for O.S.I.A. materials are unpublished papers, mimeographed documents, or speeches given at American Education Research Association (A.E.R.A.) conferences — sources not easily accessible to the readers who are not at Ohio State University.

Methodology

For this study, Oru taught a five-day sculpture demonstration to groups of fifth and sixth graders in a local elementary school. He used a trained O.S.I.A. observer, not affiliated with the Greater Columbus Arts Council, and a filmmaker from the O.S.U. campus who operated a video tape recorder. The O.S.I.A. observer sat in the room with a cassette audio recorder, and an O.S.I.A. check sheet on which she marked the moves or behavior of the participants at five second intervals. The audio cassette and the video tape recorders were support aids if needed later during the analysis of data. The demonstration took place in the center of the room with the students and teachers standing around the artist in a circle. The artist demonstrated how to make a life size plaster sculpture of a student model from the armature through the finished piece. The demonstrations covered five days, and the observations were made on the first, third and fifth days. They began at 9:00 A.M. and lasted three hours, each a full day demonstration of about four sessions of thirty minutes each. There were 49 fifth graders (18-girls, 31-boys), and 48 sixth graders (28-girls, 20-boys), a total of 97 students, four classroom teachers, and one art teacher.

The Observational System for Instructional Analysis (O.S.I.A.) was used. It consists of a trained observer using a check sheet and special coding and every five seconds entering the code notation for the behavior, interaction or move taking place at the time. The O.S.I.A. system has two types of behavior with sub-categories: (Figure 2, p. 43)

I. Instructionally functional behavior.
   A. Appraisal behavior that — "judges or acknowledges a person, a behavior, or a product of a person's behavior,"
   B. Substantive behavior that "is directly associated with achieving learning outcomes, (which are)

a legitimate part of the subject matter of the field under study, and
   C. Managerial behavior that "is directly associated with nonsubstantive conditions . . . (that) help influence the achievement of substantive learning outcomes."

II. Instructionally, nonfunctional behavior:
   "does clearly or apparently interferes with either the creation of the nonsubstantive conditions for learning or with the achievement of substantive learning outcomes." (p. 43).

Example 1. (below) shows the categories of O.S.I.A. functions and code symbols (p. 44):

Function	Category	Code Symbol
SUBSTANTIVE	Thinking	1
	Sensing	2
	Manipulating Artifacts	3
	Initiating	4
	Responding	5
	Soliciting Clarification	6
	Soliciting	7
MANAGERIAL	Thinking	01
	Sensing	02
	Manipulating Artifacts	03
	Initiating	04
	Responding	05
	Soliciting Clarification	06
	Soliciting	07
APPRAISAL	Judging Correctness	8
	Personal Positive Judging	9
	Acknowledging	10
	Judging Incorrectness	11
	Personal Negative Judging	12
	Instructionally Non-functional	13
	External Instructionally Nonfunctional Source	x
	Interaction Separation	v
	Serial Behavior Separation	z

Figure 3. Categories of O.S.I.A.; Their Functions and Code Symbols. (p. 44)

EXAMPLE NO. 1

Goals and objectives set for the demonstration were based on those of Greater Columbus Arts Council, Artists-in-Schools Guidelines, and the *Guidelines for Planning Art Instruction in the Elementary Schools of Ohio*. Three goals and seventeen objectives were identified: 1) Personal fulfillment through art — six objectives, 2) Awareness of Art in Society — five objectives, and 3) Awareness of Artistic Heritage — six objectives. The seventeen objectives dealt with children learning to understand and use terms and equipment of making sculpture, develop perceptual powers, describe qualities in works of sculpture, judge and explain significance of works of art, interpret art, develop criteria for art judgments, understand social and cultural differences in American and Nigerian art, talk about Nigerian art and culture, and realistic and abstract sculpture, understand differences from artists and themselves in sources, development and presentation of ideas in visual form, personal expression, and control of media.

Oru developed eleven coded subscripts and assigned them to the seventeen objectives. For example:

Goal I Personal Fulfillment Through Art:

Obj. 1. "develop (children's) understanding of terms and equipment used to make sculpture" (p. 50), was assigned subscript B, which used categories of "initiating, responding, soliciting clarification, and soliciting" (p. 52). The code numbers for these behaviors are, respectively: 5, 6, 7. Subscript B was also assigned to Goal III, Objective 6.

Obj. 2. "develop (children's) powers of perception by taking note of visual qualities in the art work as it is produced by the sculptor," (p. 50), was assigned subscript H, and "only coded when, as the artist demonstrates, students watch with rapt attention and willingness to experience program." (p. 54). The code for subscript H is "H."

Obj. 3. "voice descriptions of the qualities (the children) see in the work being made by the sculptor" (p. 50), was assigned subscript E, "initiating, responding, soliciting clarification and soliciting" (p. 53). The code numbers are 4, 5, 6 and 7. Subscript E was also assigned to Goal I, objective 5, Goal II, objective 5, and Goal III, objectives 3 and 5.

Other coding was also used: i.e., T — Teacher, S — Student, and Q — Other, which in this case is the Artist (p. 63).

The goals and objectives were discussed with the teachers and principal of the school. It is not clear if the demonstration of a life size plaster sculpture of a student had any direct relationship with an on-going part of the art program for fifth and sixth grade students. Nor is it clear why Nigerian art and culture were included in the objectives and subject matter, except for the nationality of the artist, who is Nigerian. Were the students studying Nigeria? What relationship has Nigerian art to sculpting in plaster with an armature? One of the criteria in evaluating an A.I.S. program not mentioned by Eisner is its relationship to the on-going curriculum. There is no evidence in Oru's ethnographic information about the demonstration that any examples or materials dealing with Nigerian culture and art were used to support those particular objectives.

Results and Discussion

Following each of the observations, the O.S.I.A. data on frequencies of behavior, categories, and subscripts were keypunched on computer cards and processed on a specially designed O.S.I.A. computer program. The major question (quoted above) was given five

subquestions, and each was answered for each of the three days. The data analysis produced thirty-seven tables and nine figures of information on rank order of frequency, strategy patterns, functional distributions of behaviors, printouts of O.S.I.A. 1,849 item cell-matrices, and ethnographic data. All of which describe the interaction of the participants in each of their possible relationships for each of the three observation days. A composite of the three days observation in answer to the five subquestions is provided in the summary.

As an example, the frequency of those behaviors assigned to objectives 1 and 3, described above for Goal I, for the first day, would be within the following data: (Table 1, p. 71)

Student substantive
  solicitation   — 154 times
Student substantive
  response   — 77 times
Student substantive
  solicitation for
  clarification   — 29 times
Student substantive
  initiating   — 18 times

However, since solicitation, for example, was assigned to sixteen of the seventeen objectives, the 154 times includes each of them. Since each objective has more than one behavior category assigned to it, the actual process of finding out how many frequencies of behavior for a single objective was not provided. Consequently, a 1 to 1 ratio of behavior to objective does not seem feasible. It may be in the data that is provided in the "Subscript Analysis of Behavior Tables," but as simple as they look this reviewer still cannot figure out what they mean.

A section of Table 2, "Rank order of major moves by program participants on the first day . . ." (pp. 72-75), is

TABLE 2

Rank Order of Major Moves by Program Participants on the First Day of Program Activities Obtained from Quadrants 1-9, Figure 7

Program Participants	Major Numbers of Moves from One Behavior to Another in Rank Order
Move from Teacher to Teacher	(T4-T7) from teacher substantive initiation to teacher substantive solicitation (4 times), (T04-T4) from teacher managerial initiation to teacher initiation of the substantive type (2 times).
Move from Student to Teacher	(S5-T7) from student substantive response to teacher substantive solicitation (occurred 10 times), (S5-T6) from student substantive response to teacher substantive solicitation for clarification (7 times).
From Student to Teachers	(S7-T5) from student substantive solicitation to teacher substantive response (5 times), (S5-T4) from student substantive response to teacher substantive initiation (3 times), (S6-T5) from student substantive solicitation for clarification to teacher substantive response (3 times).
From Artist to Teachers	(Q5-T7) from artist substantive response to teacher substantive solicitation (14 times), (Q5-T6) from artist response to teacher solicitation for clarification (11 times), (Q5-T4) from artist substantive response to teacher substantive initiation (6 times), (Q4-T4) from artist substantive initiation to teacher substantive initiation (4 times), (Q4-T7) from artist substantive initiation to teacher substantive solicitation (4 times), (Q04-T04) from artist managerial initiation to teacher managerial initiation (3 times).

EXAMPLE NO. 2   (p. 72)

printed below (see: Example 2). Inter-action relationships on Table 2, not included on the example are: from teacher to students, artist to students, teacher to artist, student to artist, student to student, and artist to artist. There are three such tables (2, 12, and 20), totalling ten pages. After awhile it was like reading Gertrude Stein without the poetry.

In conclusion, it was found that the "study objectively presented the facts about the characteristics of the pro-gram-model the way they really were . . ." (p. 148). The program-model picked up shifts of behavior between participants, indicated that the artist also plays the role of teacher; thus, putting two or more teachers in the room at the same time (a fact long rec-ognized by elementary art teachers who push an art cart), showed that some "program objectives were over-emphasized at the expense of others" (p. 148), indicated where the greatest degree of interaction exists between program participants (in this case, be-tween artist and students), was "ade-quate" (p. 149) for obtaining data about A.I.S. programs, and along with ethno-graphic methods was considered "valid and feasible" (p. 149) for use by art educators and staff members of the N.E.A. to describe and evaluate A.I.S. processes.

Reviewer's Commentary

It may seem pedantic and picayune, but comment should be made about the stylistic and grammatical errors in this dissertation. A few errors in co-ordinating reference and bibliographi-cal listing have been noted above.

Perhaps the most complex error oc-curs on page twelve, where the word ". . . buried" is quoted and attributed to "Smith, ed. p. 9, 1978." There is no supporting data in the bibliography. Also, the word "buried" was on page 9 of an article by Eisner first published in 1974 (1978), reprinted in a publica-tion, *Artist-in-Schools: Analysis and Criticism,* edited by Ralph Smith (1978). The same publication is listed in the bibliography, under two other authors printed in it, "Jones, R. L., Jr." (p. 210) and "Marantz, Kenneth" (p. 212). The Eisner article, having been used pre-viously, was listed under its first pub-lishing date (p. 207), and "buried" could have been referred to in that article instead of to Smith.

In his referencing, there are stylis-tic misuses of "et al.," and inconsis-tencies in the use of first names and/or initials. A few other errors are: "ac-cronym" has only one "c" and is mis-used to define the initial abbreviations A.I.S.P. and O.I.S.A., neither of which spell words (pp. 23, 24). In "model pro-grams for E.M.E. Students" (p. 40), E.M.E. should be spelled out, unless it is EMR for Educable Mentally Re-tarded, in which case it should have been noted and corrected.

We do not know the constraints under which this dissertation was ap-proved. Oru may be unfamiliar with some aspects of the English language. Using the dissertation style is never easy, but most of these errors could have been corrected through concen-trated proofreading.

Stephen Orise Oru has done a con-scientious and thorough job in data analysis and reports using the O.S.I.A. method. He successfully demonstrates that interaction analysis can be used to evaluate artists in the classroom, but within the limits of the interaction analysis context. Is it practical to do so for A.I.S. programs? I think not. Does the O.S.I.A. satisfy the need for honest evaluation reportage? No. This disser-tation raised issues which it did not answer. In spite of the efforts by Eisner, Day, Smith and others, A.I.S. funding organizations still see evaluations as threats instead of the means to im-prove their programs. They may also look on educators as so many mis-guided academia nuts. They often

seem self-righteous in their support of artists-in-schools, instead of supporting art teachers in schools, yet it is the art teacher-in-place who sustains the continuous learning of children in art.

I suspect the O.S.I.A. and other interaction analysis methods would turn off governmental and other AIS funding agencies to any serious evaluations for the following reasons:

1. The terminology and charts are incomprehensible without special training in O.S.I.A., and the process of deciphering is too cumbersome for easy report reading. If translated into readable language, it could be gathered by other means. The congressman, state advisory representative, funding agency's board of directors, school administrators, or others for whom evaluation reports are written, would not care how many "solicitations for clarifications" take place every five seconds.

2. The cost of such an evaluation for one day of an A.I.S. demonstration, by a trained observer, a video tape recorder technician, and the processing of computer data with printouts would be considerably more than the $75.00 or so for the artist. As a rule of thumb, five percent (5%) of the total cost of an A.I.S. or other state or federally funded arts program can be allocated for evaluation. Five percent of $75.00 is $3.75. To offset this, a special grant would be necessary to evaluate the 72 or so programs in the Greater Columbus Arts Council Directory using O.S.I.A. methods.

3. The O.S.I.A. method provided only cognitive quantitative data, nothing was revealed about the quality of the program, the final work of art (was Oru's sculpture worth watching for five days), or follow-up and spin-off activities in the art or classroom. On the affective domain level, it only revealed data in the 1.0 Receiving (awareness) and 2.0 Responding — to the 2.2 Willingness to Respond level. There is no evidence of 2.3 Satisfaction or Response or 3.0 Valuing, Commitment, or 4.0 Conceptualization of a Value System.

4. O.S.I.A. does not provide the type of information available through questionnaires, surveys, visitations, teachers, students' journals, project newsletters, narratives, interviews, quality of student products and performances, and other devices. They provide the qualitative data that balances the interaction analysis methods.

What is eminently clear from this dissertation is that regardless of the evaluation methods, the report should have integrity, be honest, and communicate the type of information which can improve the weaknesses of the program and presumably continue it.

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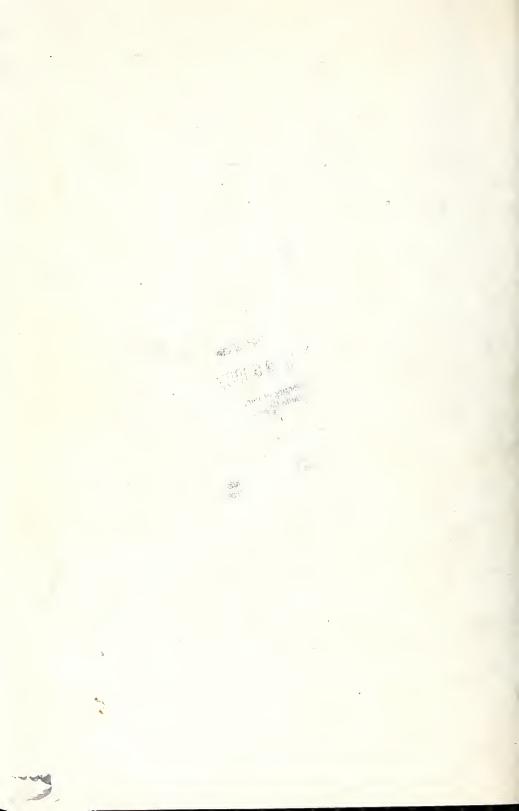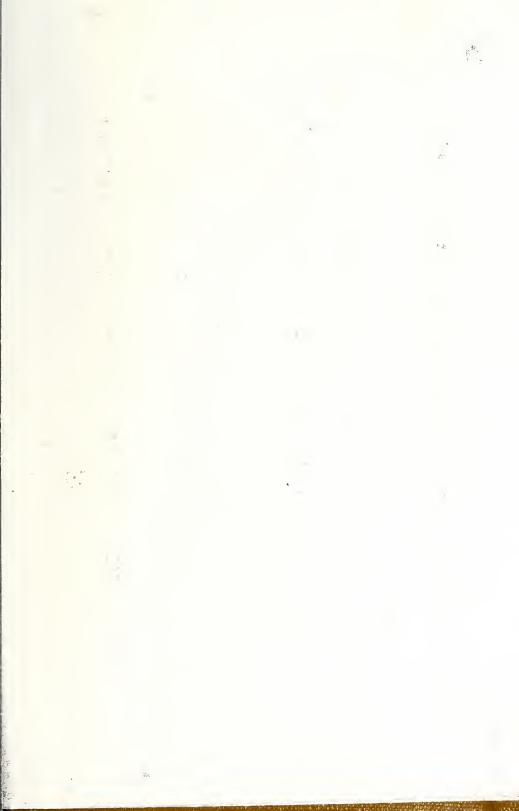
Jerry Savage, ''Skating on Thin Ice''
Watercolor
19 x 18 inches